INVITATION TO BID		**BID DUE DATE AND TIME**
BOARD OF SUPERVISORS OF LOUISIANA STATE UNIVERSITY AND AGRICULTURAL & MECHANICAL COLLEGE	**LSU**	**05/24/2006 11:00 AM CT**

SOLICITATION 000000659

VENDOR #

VENDOR NAME AND ADDRESS

RETURN BID TO

LSU
LOUISIANA STATE UNIV.
PURCHASING OFFICE
213 THOMAS BOYD HALL
Baton Rouge LA 70803

BUYER Charlotte Newman
BUYER PHONE (225)578-2290

ISSUE DATE 05/04/2006

TITLE: ELEVATOR MAINTENANCE

To Be Completed By Bidder

1. _____ "No Bid" (sign and return this page only).
2. _____ My Company does not wish to receive future solicitations for this commodity code.
3. Specify your Delivery: To be made within _____ days after receipt of order.
4. Specify your Payment Terms: _____.
   Prompt payment cash discounts for less than 30 days and less than 1% will be accepted, but will not be considered in determining awards. On indefinite quantity term contracts, cash discounts will be accepted and taken, but will not be considered in determining awards.
5. Specify your Bid Reference Number: _____.
   (This number will appear on any resulting order or contract.)

General Instructions to Bidders

1. Sealed bids for furnishing the items and/or services specified are hereby solicited, and will be received by the issuing LSU Campus/Department at the "Return Bid To" address stated above, until the specified due date and time.
2. Bids must be signed by a person authorized to bind the vendor. In accordance with Louisiana R.S. 39:1594, the person signing the bid must be: (1) a current corporate officer, partnership member, or other individual specifically authorized to submit a bid as evidenced in the appropriate records filed with the Louisiana Secretary of State; or (2) an individual authorized to bind the vendor as evidenced by a corporate resolution, certificate or affidavit; or (3) other documents indicating authority which are acceptable to the public entity.
3. Read the entire solicitation, including all terms, conditions and specifications.
4. All bid information and prices must be typed or written in ink. Any corrections, erasures or other forms of alteration to unit prices are to be initialed by the bidder.
5. Bid prices shall include all delivery charges paid by the vendor, F.O.B. LSU Destination, unless otherwise provided in the solicitation. Any invoiced delivery charges not quoted and itemized on the LSU purchase order are subject to rejection and non-payment.
6. Payment is to be made within 30 days after receipt of properly executed invoice, or delivery and acceptance, whichever is later. Delinquent payment penalties are governed by L.R.S. 39:1695.
7. By signing this solicitation, the bidder certifies compliance with all general instructions to bidders, terms, conditions and specifications; and further certifies that this bid is made without collusion or fraud.

BIDDER (Name of Firm)	MAILING ADDRESS
AUTHORIZED SIGNATURE	CITY, STATE ZIP
PRINTED NAME	PHONE #
TITLE	FAX #
E-MAIL	FEDERAL TAX ID #

These standard terms and conditions shall apply to all LSU solicitations, unless otherwise specifically amended and provided for in the special terms and conditions, specifications, or other solicitation documents. In the event of conflict between the General Instructions to Bidders or Standard Terms & Conditions and the Special Terms & Conditions, the Special Terms & Conditions shall govern.

Bids submitted are subject to provisions of the laws of the State of Louisiana, including but not limited to: the Louisiana Procurement Code (R.S. 39:1551-1736); Purchasing Rules and Regulations (Title 34 of the Louisiana Administrative Code); Executive Orders; and the terms, conditions, and specifications stated in this solicitation.

1. **Bid Delivery and Receipt**
   To be considered, sealed bids must be received and time-stamped at the "Return Bid To" address no later than the due date and time specified herein. Sealed bids cannot be accepted by telegraph, fax, or e-mail. Price alterations and addenda to bids may be submitted by telegraph or fax, and will be considered provided bidder's sealed bid, price alterations and addenda have been received in the purchasing office prior to bid opening time. Late bids cannot be accepted per L.A.C. 34.I.517, and shall be returned unopened.
2. **Bid Forms**
   Bids are to be submitted on and in accordance with the LSU solicitation forms provided, and must be signed by an authorized agent of the vendor. Bids submitted on other forms or in other price formats may be considered informal and may be rejected in part or in its entirety. Bids submitted in pencil and/or bids containing no original signature indicating the bidder's intent to be bound will not be accepted.
3. **Interpretation of Solicitation/Bidder Inquiries**
   If bidder is in doubt as to the meaning of any part or requirement of this solicitation, bidder may submit a written request for interpretation to the Buyer-of-Record at the address and/or fax number shown above. Written inquiries must be received in the Purchasing Office no later than five (5) calendar days prior to the opening of bids, and shall be clearly cross-referenced to the relevant solicitation/specification in question.
   No decisions or actions shall be executed by any bidder as a result of oral discussions with any LSU employee or consultant. Any interpretation of the documents will be made by formal addendum only, issued by the Purchasing Office, and mailed or delivered to all bidders known to have received the solicitation. LSU shall not be responsible for any other interpretations or assumptions made by bidder.
4. **Bid Opening**
   Bidders may attend the public bid opening of sealed bids and proposals. No information or opinions concerning the ultimate contract award will be given at bid opening or during the evaluation process. Written bid tabulations will not be furnished. Bids may be examined within 72 hours after bid opening. Information pertaining to completed files may be secured by visiting the Purchasing Office during normal working hours.
5. **Special Accommodations**
   Any "qualified individual with a disability" as defined by the Americans with Disabilities Act, who has submitted a bid and desires to attend the public bid opening, must notify the Purchasing Office in writing not later than seven days prior to the bid opening date of their need for special accommodations. If the request cannot be reasonably provided, the individual will be informed prior to the bid opening.
6. **Standards of Quality**
   Any product or service bid shall conform to all applicable federal, state and local laws and regulations, and the specifications contained in the solicitation. Any manufacturer's name, trade name, brand name, or catalog number used in the specification is for the purpose of describing the standard of quality, performance, and characteristics desired; and is not intended to limit or restrict competition. Bidder must specify the brand and model number of the product offered in his bid. Bids not specifying brand and model number shall be considered as offering the exact product specified in the solicitation.
7. **New Products/Warranty/Patents**
   All products bid for purchase must be new, never previously used, of the manufacturer's current model and/or packaging, and of best quality as measured by acceptable trade standards. No remanufactured, demonstrator, used or irregular products will be considered for purchase unless otherwise specified.
   The manufacturer's standard published warranty and provisions shall apply, unless more stringent warranties are otherwise required by LSU and specified in the solicitation. In such cases, the bidder and/or manufacturer shall honor the specified warranty requirements, and bid prices shall include any premium costs of such coverage.
   Bidder guarantees that the products proposed and furnished will not infringe upon any valid patent or trademark; and shall, at its own expense, defend any and all actions or suits charging such infringement, and shall save LSU harmless.
8. **Descriptive Information**
   Bidders proposing an equivalent brand or model are to submit with the bid descriptive information (such as literature, technical data, illustrations, etc) sufficient for LSU to evaluate quality, suitability, and compliance with the specifications. Failure to

submit descriptive information may cause bid to be rejected. Any changes made by bidder to a manufacturer's published specifications shall be verifiable by the manufacturer. If items bid do not fully comply with specifications, bidder must state in what respect items deviate. Bidder's failure to note exceptions in its bid will not relieve the bidder from supplying the actual products requested.

9. Bids/Prices/F.O.B. Point

- The bid price for each item is to be quoted on a "net" basis and F.O.B. LSU Destination, i.e. title passing upon receipt and inclusive of all delivery charges, any item discounts, etc.
- Bids other than F.O.B. LSU Destination may be rejected.
- Bids indicating estimated freight charges may be rejected.
- Bids requiring deposits, payment in advance, or C.O.D. terms may be rejected.
- Bidders who do not quote "net" item prices and who separately quote an overall "lump sum" freight cost or discount for all items shall be considered as submitting an "all-or-none" bid for evaluation and award purposes; and risk rejection if award is made on an item basis.
- Prices shall be firm for acceptance for a minimum of 30 days, unless otherwise specified. Bids conditioned with shorter acceptance periods may be rejected.
- Prices are to be quoted in the unit/packaging specified (e.g. each, 12/box, etc), or may be rejected.
- In the event of extension errors, the unit price bid shall prevail.

10. Taxes

Vendor is responsible for including all applicable taxes in the bid price. LSU is exempt from all Louisiana state and local sales and use taxes. By accepting an award, resident and non-resident firms acknowledge their responsibility for the payment of all taxes duly accessed by the State of Louisiana and its political subdivisions for which they are liable, including but not limited to: franchise taxes, privilege taxes, sales taxes, use taxes, ad valorem taxes, etc.

11. Terms and Conditions

This solicitation contains all terms and conditions with respect to the purchase of the goods and/or services specified herein. Submittal of any contrary terms and conditions may cause your bid to be rejected. By signing and submitting a bid, vendor agrees that contrary terms and conditions which may be included in its bid are nullified; and agrees that this contract shall be construed in accordance with this solicitation and governed by the laws of the State of Louisiana.

12. Vendor Forms/LSU Signature Authority

The terms and conditions of the LSU solicitation and purchase order/contract shall solely govern the purchase agreement, and shall not be amended by any vendor contract, form, etc.

The University's chief procurement officer, or authorized designee, is delegated sole authority to execute/sign any vendor contracts, forms, etc, on behalf of LSU. Departments are expressly prohibited from signing any vendor forms.

Any such vendor contracts/forms bearing unauthorized signatures shall be null and void, shall have no legal force, and shall not be recognized by LSU in any dispute arising therefrom. Vendors who present any such forms to department users for signature without regard to this strict LSU policy may face contract cancellation, suspension, and/or debarment.

13. Awards

Award will be made to the lowest responsible and responsive bidder. LSU reserves the right: (1) to award items separately, grouped, or on an all-or-none basis, as deemed in its best interest; (2) to reject any or all bids and/or items; and (3) to waive any informalities.

All solicitation specifications, terms and conditions shall be made part of any subsequent award as if fully reproduced and included therein, unless specifically amended in the formal contract.

14. Acceptance of Bid

Only the issuance of an official LSU purchase order/contract, a Notification of Award letter, or a Notification of Intent to Award letter shall constitute the University's acceptance of a bid. LSU shall not be responsible in any way to a vendor for goods delivered or services rendered without an official purchase order/contract.

15. Applicable Law

All contracts shall be construed in accordance with and governed by the laws of the State of Louisiana.

16. Awarded Products/Unauthorized Substitutions

Only those awarded brands and numbers stated in the LSU contract are approved for delivery, acceptance, and payment purposes. Any substitutions require prior approval of the Purchasing Office. Unauthorized product substitutions are subject to rejection at time of delivery, post-return at vendor's expense, and non-payment.

17. Testing/Rejected Goods

Vendor warrants that the products furnished will be in full conformity with the specification, drawing or sample, and agrees that this warranty shall survive delivery, acceptance, and use. Any defect in any product may cause its rejection. LSU reserves the right to test products for conformance to specifications both prior to and after any award. Vendor shall bear the cost of testing

if product is found to be non-compliant. All rejected goods will be held at vendor's risk and expense, and subject to vendor's prompt disposition. Unless otherwise arranged, rejected goods will be returned to the vendor freight collect.

18. Delivery

Vendor is responsible for making timely delivery in accordance with its quoted delivery terms. Vendor shall promptly notify the LSU Department and/or Purchasing Office of any unforeseen delays beyond its control. In such cases, LSU reserves the right to cancel the order and to make alternative arrangements to meet its needs.

19. Default of Vendor

Failure to deliver within the time specified in the bid/award will constitute a default and may be cause for contract cancellation. Where the University has determined the vendor to be in default, LSU reserves the right to purchase any or all goods or services covered by the contract on the open market and to surcharge the vendor with costs in excess of the contract price. Until such assessed surcharges have been paid, no subsequent bids from the defaulting vendor will be considered for award.

20. Vendor Invoices

Invoices shall reference the LSU purchase/release order number, vendor's packing list/delivery ticket number, shipping/delivery date, etc. Invoices are to be itemized and billed in accordance with the order, show the amount of any prompt payment discount, and submitted on the vendor's own invoice form. Invoices submitted by the vendor's supplier are not acceptable.

21. Delinquent Payment Penalties

Delinquent payment penalties are mandated and governed by Louisiana R.S. 39:1695. Vendor penalties to the contrary shall be null and void, shall have no legal force, and shall not be recognized by LSU in any dispute arising therefrom.

22. Assignment of Contract/Contract Proceeds

Vendor shall not assign, sublet or transfer its contractual responsibilities, or payment proceeds thereof, to another party without the prior written consent and approval of the Purchasing Office. Unauthorized assignments of contract or assignments of contract proceeds shall be null and void, shall have no legal force, and shall not be recognized by LSU in any dispute arising therefrom.

23. Contract Cancellation

LSU has the right to cancel any contract for cause, in accordance with purchasing rules and regulations, including but not limited to: (1) failure to deliver within the time specified in the contract; (2) failure of the product or service to meet specifications, conform to sample quality or to be delivered in good condition; (3) misrepresentation by the vendor; (4) fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the University; (5) conflict of contract provisions with constitutional or statutory provisions of state or federal law; (6) any other breach of contract.

LSU has the right to cancel any contract for convenience at any time by giving thirty (30) days written notice to the vendor. In such cases, the vendor shall be entitled to payment for compliant deliverables in progress.

24. Prohibited Contractual Arrangements

Per Louisiana R.S. 42:1113.A, no public servant, or member of such a public servant's immediate family, or legal entity in which he has a controlling interest shall bid on or enter into any contract, subcontract, or other transaction that is under the supervision or jurisdiction of the agency of such public servant. See statute for complete law, exclusions, and provisions.

25. Equal Employment Opportunity Compliance

By submitting and signing this bid, vendor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972; federal Executive Order 11246; federal Rehabilitation Act of 1973, as amended; the Vietnam Era Veteran's Readjustment Assistance Act of 1974; Title IX of the Education Amendments of 1972; the Age Act of 1975; the Americans with Disabilities Act of 1990. Vendor agrees not to discriminate in its employment practices, and will render services under any contract entered into as a result of this solicitation without regard to race, color, religion, sex, age, national origin, veteran status, political affiliation, handicap, disability, or other non-merit factor. Any act of discrimination committed by vendor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of any contract entered into as a result of this solicitation.

26. Mutual Indemnification

Each party hereto agrees to indemnify, defend, and hold the other, its officers, directors, agents and employees harmless from and against any and all losses, liabilities, and claims, including reasonable attorney's fees arising out of or resulting from the willful act, fault, omission, or negligence of the indemnifying party or of its employees, contractors, or agents in performing its obligations under this agreement, provided however, that neither party hereto shall be liable to the other for any consequential damages arising out of its willful act, fault, omission, or negligence.

27. Certification of No Suspension or Debarment

By signing and submitting this bid, bidder certifies that its company, any subcontractors, or principals thereof, are not suspended or debarred under federal or state laws or regulations. A list of parties who have been suspended or debarred by federal agencies is maintained by the General Services Administration and can be viewed on the internet at www.epls.gov.

PRICE SHEET	INVITATION TO BID				PAGE 5
SOLICITATION 000000659	DUE DATE 05/24/2006			DUE TIME 11:00 AM	
ITEM No.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED AMOUNT
	UNLESS SPECIFIED ELSEWHERE, SHIP ALL ITEMS TO: LSU FACILITY SERVICES Elevator Maintenance Material Control Office CEBA Lane Baton Rouge, LA 70803				
0001	Commodity Code: 998-39 Maintenance {all labor (at minimum TWO mechanics) and materials}, as specified in this contract; AND between the hours of 7:30am and 4:30pm, Mondays through Fridays, for all labor (at minimum TWO mechanics) and materials to make repairs for all elevator calls such as but not limited to routine, nuisance and (vandalism under $500) of all the equipment listed in the specifications package invoiced as a single total package to Louisiana State University, Accounting Services.	12.00	MO	$ _____	$ _____

PRICE SHEET	INVITATION TO BID			PAGE 6
SOLICITATION 000000659	DUE DATE 05/24/2006		DUE TIME 11:00 AM	

ITEM No.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED AMOUNT
0002	Commodity Code: 998-38 OVERTIME. Cost for 50 hours per year of overtime call out labor not covered by item No.1 from 4:31pm through 7:29am Monday through Friday and 4:31pm Saturday through 7:29am Monday, excluding coverage for LSU football games. Estimated 50 overtime hours per year. Service tickets and invoices must be billed at No-Charge will serve as documentation for the 50 overtime hours. Specify Manufacturer / Brand Bid: _____ Specify Model / Number Bid: _____	12.00	MO	$ _____	$ _____
0003	Commodity Code: 998-38 Published overtime rates for all overtime hours over 50 per year excluding the coverage for the L.S.U. football games. Specify Manufacturer / Brand Bid: _____ Specify Model / Number Bid:		HR	$ _____	$ _____

LSU TERM CONTRACT – SPECIAL CONDITIONS

These special conditions shall apply to LSU Term Contracts, in addition to all Standard Terms and Conditions above.

A "Term Contract" is defined as an agreement with a Vendor to provide specified goods and/or services on an as-needed basis at established prices, terms and conditions during a specific period of time (or term), and does not guarantee usage. Such pricing agreements are commonly referred to as standing agreements, open end contracts, and requirements contracts. Purchase/release orders issued against term contracts serve as the Vendor's authorization to ship goods and/or provide services.

1. Scope of Contract
This solicitation is issued to establish a term contract for the specified goods and/or services for the period beginning **JULY 1, 2006** and ending **JUNE 30, 2007**, in accordance with all specifications, terms, and conditions.

2. Initial Contract Period
LSU intends to award all items for the initial contract period specified above. Award delays beyond the anticipated contract begin date may result in an initial award less than the specified contract period.

3. Contract Renewals/Extensions
At the option of LSU and acceptance by the Vendor, this contract may be renewed for 2 additional 12 month periods, or extended in partial increments thereof, at the same prices, terms and conditions of the original contract award. Total contract period not to exceed thirty-six (36) months.

4. Estimated Quantities
It is understood that LSU shall not be held responsible for purchasing any specified amount. Solicitation quantities shown are estimated only and may be based on historical contract usage and/or projected needs. Where usage is not available, a quantity of one (1) indicates a lack of history on this item. The successful Vendor must supply any order requirements at the bid/contract prices, whether the total of such requirements are more or less than the estimated quantities shown.

5. Firm Pricing
Contract prices shall remain firm for the duration of the contract term; and no price increases will be allowed, unless escalation/de-escalation provisions are specifically provided for herein. Prices may not exceed the current nationally advertised and available General Services Administration (GSA) Price Schedule if one exists.

LSU is a member of the National Association of Educational Buyers (NAEB) and the E & I Cooperative Purchasing Service.

6. Insurance Requirements
If an automobile is utilized in the execution of the contract, including deliveries made with company owned, hired, and/or non-owned vehicles, successful bidder shall be required to furnish a certificate of insurance evidencing coverages per attached insurance requirements. The Board of Supervisors of Louisiana State University and Agricultural & Mechanical College shall be named as an additional insured on all liability policies.

7. Vendor Parking on the LSU Campus – Permits & Gate Passes
Vendors and contractors needing access to reserved, gated "C" parking lots for logistics in performing business with LSU must apply for gate passes through the LSU Office of Parking, Traffic and Transportation (PTT). Visit the LSU/PTT website at www.lsu.edu/parking and the 'Permits' webpage for details.

Vendor requests are considered and granted by PTT, subject to an annual fee and qualifying criteria. Vendors not qualifying for gate passes may be granted general permits for street parking. All vendors are responsible for adhering to LSU Parking Rules and Regulations – see the PTT "Information" webpage. Direct any questions to PTT at 225-578-5000 or visit their office located in the Public Safety Building on South Stadium Road.

8. Vendor Non-Performance
Vendor is required to perform in strict accordance with all contract specifications, terms, and conditions. Vendor will be advised in writing of non-performance issues and shall be required to promptly implement corrective actions to ensure contract compliance and to prevent recurrences. In the event Vendor is issued three (3) or more complaints of non-performance, LSU reserves the right at its sole discretion to cancel the contract with a ten (10) day written notice. Contract cancellations due to non-performance may be cause to deem the Vendor non-responsible in future solicitations.

9. Contract Amendments
Requests for contract changes must be made in writing by an authorized agent/signatory of the Vendor and submitted to LSU Purchasing for prior approval. Requests shall include detailed justification and supporting documentation for the proposed amendment.

Contract revisions shall be effective only upon approval by LSU Purchasing and issuance of a formal LSU Contract Amendment. The Vendor shall honor purchase/release orders issued prior to the approval of any contract amendment as applicable.

10. Price Reductions
Whenever price reductions are made by the Vendor/Manufacturer during the LSU contract term, and which are offered to similarly-situated customers [i.e. those contracting under similar terms, conditions, periods, etc], and which are lower than LSU contract prices, said reductions shall be afforded to LSU.

Vendor shall give prompt written notice to LSU Purchasing of any such price reduction and effective date for issuance of a formal contract amendment. Price reductions must be offered to all departments. Vendors found to have knowledgably and willfully withheld such price reductions may be required to reimburse LSU of any overcharges.

11. Product Substitutions
Only those awarded brands and numbers, furnished in the packaging/units of measure and at the unit prices stated in the LSU contract, are approved for order, receipt, and payment purposes. Unauthorized product substitutions are subject to rejection at time of delivery, post-return at Vendor's expense, and non-payment.

By submitting a bid, Vendors are expected to have sound supplier agreements in place to support and responsibly perform their contractual term obligations with LSU. Unless discontinued by the manufacturer without replacement, Vendors are expected to honor the awarded brands/numbers throughout the contract term. Substitution requests based merely on the Vendor's own elective change to another supplier may be disapproved at the sole discretion of LSU Purchasing.

Departments are not authorized to approve or accept product substitutions without Purchasing approval. Vendors who act without regard to this procedure may face contract cancellation, suspension, and/or debarment.

12. Right to Add Department Users
Where this solicitation may name one department as the primary contract user, the University reserves the right to authorize additional departments to use the contract as their needs arise; and Vendor shall honor all such purchase/release orders.

13. Non-Exclusivity
This agreement is non-exclusive and shall not in any way preclude LSU from entering into similar agreements and/or arrangements with other Vendors or from acquiring similar, equal, or like goods and/or services from other entities or sources.

14. Contract Usage Report
The Vendor shall keep records of all purchases under this contract and shall be prepared to furnish a contract usage report to LSU upon request at any time during the contract term. Contract usage reports must minimally capture and report the following: item numbers and brief item descriptions; total quantities and dollars for each item subtotaled by using department names; and overall contract quantities and dollars.

15. Contract Evaluation
LSU Purchasing welcomes suggestions for contract improvements to effectively meet the needs of the departments we serve. Department feedback relative to the incumbent Vendor's performance will be requested for consideration when determining our contract options for renewal or re-solicitation. Vendor performance will be monitored for compliance with contract terms and conditions, and reports of deficient performance will be appropriately addressed with the Vendor.

The following forms are tools for evaluating our contracts and Vendor performance, and may be accessed at our website (www.fas.lsu.edu/purchasing) under Forms/General:

- PUR512 Contract Suggestions
- PUR514 Contract Performance Evaluation
- PUR515 Deficiency/Complaint Report

16. Termination for Non-Appropriation of Funds
The following condition shall apply to any contract covering multiple fiscal years:
The continuation of this contract is contingent upon the appropriation of funds by the legislature to fulfill the requirements of the contract. If the legislature fails to appropriate sufficient monies to provide for the continuation of the contract, or if such appropriation is reduced by the veto of the governor or by any means provided in the appropriations act of Title 39 of the Louisiana Revised Statutes of 1950 to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds have not been appropriated.

BOARD OF SUPERVISORS
LOUISIANA STATE UNIVERSITY AND
AGRICULTURAL & MECHANICAL COLLEGE
Purchasing Office, 213 Thomas Boyd Hall
Baton Rouge, LA 70803-3001

INSURANCE REQUIREMENTS

WORKMEN'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE: The Contractor shall, before commencing any work to be conducted under this contract, procure Workmen's Compensation and Employer's Liability insurance with a limit of liability as required by the Labor Code of the State of Louisiana with an insurance company authorized to write such policies of insurance in the State of Louisiana. It shall be the further responsibility of the Contractor to require that all subcontractors have in full force and effect, a policy of Workmen's Compensation and Employer's Liability insurance before proceeding with any of the work required under this contract. The Employer's Liability limit shall be $1,000,000 when work is over water and involves maritime exposure.

COMMERCIAL GENERAL LIABILITY INSURANCE: Commercial General Liability Insurance with a combined single limit of $1,000,000 per occurrence for bodily injury and property damage. This insurance shall include the following coverage:

1. Premises - Operations;
2. Broad Form Contractual Liability;
3. Products and Completed Operations;
4. Use of Contractors and Subcontractors;
5. Personal Injury;
6. Broad Form Property Damage;
7. Explosion, Collapse and Underground (XCU) Coverage.

BUSINESS AUTOMOBILE LIABILITY INSURANCE: Business Automobile Liability Insurance with a combined single limit of $1,000,000 per occurrence for bodily injury and property damage, unless otherwise indicated. This insurance shall include for bodily injury and property damage the following coverages:

1. Owned automobiles;
2. Hired automobiles;
3. Non-owned automobiles.

If the vendor/contractor does not own an automobile and an automobile is utilized in the execution of the contract, then only hired and non-owned coverage is acceptable. If an automobile is not utilized for the execution of the contract, then automobile coverage is not required.

Board of Supervisors of Louisiana State University and Agricultural and Mechanical College shall be named as additional insured on all liability policies. A Thirty (30) day prior notice of cancellation must be given to the University for all required coverages. Insurance must be from a company with an A.M. Best's rating of no less than A-:VI who is authorized to do business in the State of Louisiana. The A.M. Best's rating requirement may be waived for Worker's Compensation only.

The successful contractor is to provide the owner with a certificate of insurance prior to commencement of work.

Elevator Installation, Maintenance and Repair Contract

NOTICE

BID, PRICE SHEETS, VERIFICATION OF QUALIFICATIONS AND ENGINEERING RESPONSIBILITY SHALL BE COMPLETELY FILLED OUT WITH DETAIL INFORMATION REQUESTED AND SUBMITTED WITH BID OR YOUR BID MAY BE REJECTED.

IN ACCORDANCE WITH R.S. 37:2163A CONTRACTOR'S LICENSE NUMBER MUST APPEAR ON THE BID OPENING ENVELOPE ON ALL PROJECTS IN THE AMOUNT OF $50,000 OR MORE. ALL BIDS NOT IN COMPLIANCE WITH THIS REQUIREMENT SHALL BE AUTOMATICALLY REJECTED AND NOT READ.

FOR ANY BID SUBMITTED IN THE AMOUNT OF FIFTY THOUSAND DOLLARS OR MORE, THE CONTRACTOR SHALL CERTIFY THAT HE IS LICENSED AND SHOW HIS LICENSE NUMBER ON THE BID.

MANADATORY INSPECTION OF SITE:

BIDDERS SHALL BE HELD RESPONSIBLE FOR HAVING INSPECTED THE JOB SITES PRIOR TO SUBMITTING A BID. AFTER INPECTING THE SITE, BIDDER MUST GET THE DEPARTMENT REPRESENTATIVE'S SIGNATURE BELOW. FAILURE TO HAVE SUCH SIGNATURE IS CAUSE AND MAY CAUSE REJECTION OF BID. BEFORE VISITING THE JOBSITE, CONTACT THE DEPARTMENT'S CONTACT PERSON TO MAKE AN APPOINTMENT.

CONTACT PERSON: L. Ray Dudley

TELEPHONE NUMBER: 225-578-5635

THE UNDERSIGNED HAS INSPECTED THE INDICATED SITES AS LISTED:

VENDOR REPRESENTATIVE SIGNATURE: _____

DEPARTMENT REPRESENTATIVE SIGNATURE: _____

DATE:_____

DEFINITIONS:

OWNER - LOUISIANA STATE UNIVERSITY AND A & M COLLEGE.

Elevator Installation, Maintenance and Repair Contract

1. Vendor must inspect job site to verify measurements and/or amount of supplies needed prior to bidding. If vendor finds conditions that disagree with the physical lay-out as described in this bid, or other features of the specifications that appear to be in error, same shall be noted on proposal. Failure to do so will be interpreted that bid is as specified.

This signed statement certifies that the vendor named below has visited the job site and is familiar with all conditions surrounding fulfillment of the specifications for this project.

_____ _____

VENDOR'S COMPANY NAME DATE

_____

VENDOR'S SIGNATURE

2. Any orders resulting from this solicitation will be paid with the new FY funds, if appropriated by the legislature. Delivery cannot be made prior to July 1, 2006 and your bid prices must be firm for acceptance and delivery accordingly.

NOTICE

Definitions:

Department – LOUISIANA STATE UNIVERSITY A&M COLLEGE

Owner – Louisiana State University A&M College where the vertical transportation is being maintained.

Gentlemen:

I (we) do hereby declare that I (we) have carefully examined the specifications and the contract documents, including all addenda, prepared by the University of this bid and I (we) have a clear understanding of said documents and premises, and hereby propose to provide the necessary tools, machinery and apparatus along with other needs necessary to complete the work specified. We will provide all material, furnish all labor and services specified in the contract or called for in the contract documents including permits necessary for the completion of the project or work listed for the sum below.

I (we) also agree to follow REQUIREMENTS, SEQUENCE AND FREQUENCY listed under "MAINTENANCE PROCEDURES".

IF I (WE) FAIL TO FOLLOW THESE SPECIFICATIONS AND DOCUMENT THE "MAINTENANCE PROCEDURES" WITH THE OWNER OR IF THERE IS ANY EVIDENCE OF FRAUDULENT DOCUMENTATION I (WE), WILL WITHOUT RESERVATION, FREELY FORFEIT THE CONTRACT ALONG WITH ANY MONIES DUE FROM THE DATE OF SUCH FINDING. ALL MATERIALS AND LABOR WILL BE LEFT INTACT AND I (We) WILL NOT SEEK ANY RESTITUTION.

I (WE) HAVE READ THE ENTIRE SPECIFICATIONS AND WILL NOT USE OVERSIGHT AS AN EXCUSE FOR NOT FULFILLING MY (OUR) OBLIGATION.

Contractor:

By: _____

Title:

_____

Date:

_____

CONTRACTOR'S LICENSE NO.: _____

WE ACKNOWLEDGE THE FOLLOWING ADDENDA 1. 2. 3. 4.

ACCEPTANCE

LOUISIANA STATE UNIVERSITY AND A & M COLLEGE

_____

APPROVED BY:

_____ _____

OFFICE OF PURCHASING DATE OF AWARD

Recommendation: _____

_____

_

_____

_

SPECIFICATIONS FOR ELEVATOR/ESCALATOR MAINTENANCE

General:

Based on this these specifications bids shall be received by Louisiana State University and A & M College, Purchasing Office, Room 213 Thomas Boyd Hall, Baton Rouge, Louisiana for servicing the Vertical Transportation at Louisiana State University and A & M College

Hereafter denoted by the term "University or Owner." The use of the word "vendor" or "Contractor" shall be interpreted to be the firm or corporation who has been awarded a contract by the University. The successful bidder shall be required to sign a contract with the University in strict accordance with these specifications for services which includes the contract document.

With the complexity of equipment and the liability exposure of today's vertical transportation it is necessary to not only provide top quality maintenance, but to also have a professional engineering group to verify the quality of material and safe operation of any wiring changes being used or integrated into the system. For the protection of the owner, passengers and other related exposures connected to fulfillment of this contractual obligation, the bidder will include in his bid, monies for engaging Licensed Professional Engineers*, with no less than five years experience in specifying elevator materials and verifying wiring changes. The name of the Licensed Professional Engineer or group of Licensed Professional Engineers committed by letter to this responsibility, along with their address and signature shall be provided in the space for the verification of this information under "ENGINEERING RESPONSIBILITY".

Bids will be considered only from bidders who are regularly established in the business called for and who, in the judgment of the Department, are financially responsible and able to show evidence of the reliability, ability, experience, facilities, and persons directly employed and supervised by them to render prompt and satisfactory service.

Compliance with the latest edition of A.N.S.I. A17.1 code with and including supplemental adoptions will be required.

The University reserves the right to add or delete elevators as necessary.

*Elevator Contractors must be licensed in the State of Louisiana

SPECIAL CONDITIONS

The University reserves the right to award items separately, in groups or all or none basis and to reject any or all bids and waive any informalities.

It shall be specifically agreed and understood that the bidders may attend the bid opening, but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Bids may be examined by parties seventy two (72) hours after the bid opening. Where any award is being considered, bidders shall comply with requests from the University personnel to visit their facilities and/or furnish additional information in order to assist evaluating bids.

Bid prices must be firm for a period of sixty (60) days from the date of the bid opening to allow for evaluation if necessary.

Compensation insurance, public liability and property damage insurance, as outlined in the specifications, are required and evidence of such insurance must be submitted by the successful vendor prior to commencing the contract.

If any problems occur or questions arise concerning the "original manufacturers parts" or "equal" it shall be the responsibility of the contractor to provide such verification as may be requested by the University Facility Services Personnel. See "CLARIFICATIONS".

Termination For Cause: Louisiana State University may terminate this contract for cause based upon the failure of the contractor to comply with the terms and/or conditions of the contract; provided that the state shall give the contractor written notice specifying the contractor's failure. If within fifteen (15) days after receipt of such notice, the contractor shall not have either corrected such failure or thereafter proceeded diligently to complete such correction, then the state may at its option, place the contractor in default and the contract shall terminate on the date specified in such notice. The contractor may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the university to comply with the terms

and conditions of this contract; provided that the contractor shall give the university written notice specifying the university's failure.

RECORDS:

The Contractor shall maintain a complete, orderly and chronological file, including drawings, parts lists specifications and copies of all prepared reports. A record of all callbacks and repairs shall be kept by the contractor indicating any difficulty experienced and the corrective measures taken to eliminate these difficulties. A copy of the Elevator/Escalator Maintenance Log furnished with the contract must be filled out then forwarded to the University Representative and a copy must be sent to the Office of State Buildings monthly. The reports or trouble calls must be verified and signed by a person designated by the University, who will retain a copy. All trouble calls (call backs and repairs) are indicated by a "call ticket" and signed by the contractor and the university. A copy of these "call tickets" is to be forwarded to the University Representative and the Office of State Buildings monthly. **These monthly reports must be electronically sent through the use of e-mail or a web site.**

GUARANTEE:

The contractor agrees to accept all of the equipment, (except as excluded by these specifications), on full Maintenance, on the effective date of this contract, unless it is otherwise indicated by a detailed report, on each unit, and attached to his bid. It is also agreed that he will leave the units in the same condition and with the same performance when the contract is terminated, as on the date the contract is made effective. Shall the Contractor fail to render the services ordered under this contract, the owner reserves the right to cancel this contract, by certified letter. Upon the expiration of ten (10) days from the mailing of the certified letter, setting forth the services which the contractor has failed to provide, the contract shall be terminated, unless satisfactory services are in fact performed during this ten (10) day period. Termination under this article shall not relieve or affect either party of any obligation or liability that may have occurred prior to such termination. The owner reserves the right from time to time to employ others to make such checks as they may deem necessary or advisable. When it is found that any of the units of Vertical Transportation are not up to proper standards, safety requirements or tests are not being performed as required by the current A.N.S.I. code the University, may exercise any or all of its options as set forth in these specifications. If these demands are not promptly complied with, within ten (10) days of the mailing of a certified letter. The University may cancel this agreement and enter into an agreement with others to perform such work and deduct the total cost thereof from the contractor's monthly charges for maintenance service. If the contract has been terminated or has expired the owner will demand payment from the contractor or his bonding agent for the additional costs incurred.

The owner reserves the right to act as sole agent in determining if service is satisfactory, including a determination of whether parts need replacing in accordance with ANSI code. The contractor's failure to comply with the owner's demands in this regard, within ten (10) days of

mailing of a certified letter containing such demands, will constitute a circumstance under which the owner may immediately terminate the contract. The owner shall conduct, through the operational unit, periodic inspections to determine the status of individual elevators and/or escalators. A QEI-1 inspector contracted by the State will also perform inspections twice a year. These inspections shall be conducted in accordance with a uniform maintenance plan formulated by the University. Results and reports of such inspections will be furnished to the contractor and the University. The owner reserves the right to request the Office of State Buildings to help in determining if any services are satisfactory.

PERFORMANCE BOND:

The successful vendor will be required to execute and deliver to the University within fifteen (15) days after receipt of formal notification of awarding of the contract, a performance bond in an amount equal to the contract sum. Any surety bond(s) shall be written by a Surety or insurance company licensed to do business in the State of Louisiana and currently on the U.S. Department of Treasury Financial Management Service list of approved bobding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least a A- rating in the latest printing of the A.M. Best Key Rating Guide to write individual bonds up to 10 percent (10%) of policyholders surplus as shown in the A.M. Best Key Rating Guide or by an insurance company that is either domiciled in Louisiana or owned by Louisiana by Louisiana residents and is licensed to write surety bonds. Power of Attorney must be attached to the bond submitted.

Public Liability insurance and workmen's compensation shall be carried by the contractor and a certificate of insurance shall be furnished prior to the effective date of the contract. The limits of such insurance shall be as indicated in insurance requirement section of these specifications (see Attached) and shall be from a company licensed to do business in the state of Louisiana.

Permits, Licenses, Laws and Taxes:
The contractor shall furnish all necessary permits, licenses, and certificates and comply with all laws or ordinances applicable to the locality of the building site and the State of Louisiana. The contractor shall include in his bid all applicable state, federal or other taxes required.

CONTENTS OF THE SIGNED AGREEMENT:

THE PURCHASE ORDER AND THE BIDDERS SPECIFICATIONS SHALL BE COMBINED TO FORM THE COMPLETE CONTRACT WHEN THE AWARD IS MADE.

INSTRUCTIONS TO BIDDERS

A. PROJECT:

Maintenance and Repair of Vertical Transportation Systems for Louisiana State University and A & M College.

B. Bids:

Bids must be in accordance with these instructions in order to receive consideration.

C. DOCUMENTS:

Documents include the Bidding Requirement; General Instructions to Bidders, LSU Term Contract-Special Conditions, Technical Specifications, plus addenda which may be issued by the Purchasing Office of the University during the bidding period. Bidding documents may be viewed and/or obtained under the terms set forth in the Advertisement for Bid of this Project Manual.

D. EXAMINATION OF DOCUMENTS AND SITE:

Bidders shall carefully examine the Bidding Documents and the sites to obtain first-hand knowledge of the scope and the conditions of the Work. Each Contractor, by submitting a bid to perform any portion of the Work, represents and warrants that he has examined the Specifications and Site of the Work, and from his own investigation, has satisfied himself as to the scope, accessibility, nature and location of the Work; character of the equipment and other facilities needed for, the performance of the Work; the character and extent of other work to be performed; the local conditions; labor availability, practices and jurisdictions and other circumstances that may affect the performance of the Work. No additional compensation will be allowed by the Owner for failure of such Contractor or Sub-Contractor to inform him as to the conditions affecting the Work.

E. SUBSTITUTIONS:

Conditions governing the submission of substitutions for specific materials, products, equipment, and processes are in the General Conditions. Requests for substitutions must be received by the Purchasing Office seven (7) working days prior to the established bid date.

F. PREPARATION OF BIDS:

Prices quoted shall include all items of cost, expense, fees and charges incurred or arising out of, the performance of the work to be performed under the Contract. Any bid on other than the required form will be considered informal and may be rejected. Erasure or changes in the bid must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures, alterations, or irregularities of any kind may be rejected as informal. Failure to submit all requested information will make the bid irregular and subject to rejection. Bids shall be signed with the name typed below the signature. Where bidder is a corporation, bids must be signed in ink with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

H. SUBMITTAL OF BIDS:

Sealed bids will be received at the time, date and place stated in the Invitation to Bid. Bids shall be made on unaltered bid forms furnished by the Purchasing Office. Fill the blank spaces. Bids shall be signed with name typed below signature and if a partnership, give full name of all partners. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract. Submit bid in an opaque, sealed envelope addressed to the Owner and plainly mark on the outside of the envelope the project name and the name and address of the bidder. No bidder shall modify, withdraw, or cancel his bid or any part thereof for sixty (60) days after the time agreed upon for the receipt of bids. The "Non-Collusion Affidavit" shall be completed and signed by each bidder and submitted with the bid. Submit bids by mail or in person prior to the time for receiving bids set forth in the "Invitation of Bid" to Louisiana State University, Purchasing Office, 213 Thomas Boyd Hall, Baton Rouge, LA 70803.

SUMMARY SHEET

Elevator Maintenance Bid

1) Cost per month for maintenance {all labor (at minimum TWO Mechanics) and materials}, as specified in this contract; AND, between the hours of 7:30 am and 4:30 pm, Mondays through Fridays, for all labor (at minimum TWO Mechanics) and materials to make repairs for all elevator calls such as but not limited to routine, nuisance and (vandalism under $500) of all the equipment listed in the specifications package invoiced as a single total package to Louisiana State University, Accounting Services.

Cost per month..... See Bid Form

Cost for 50 hours per year of overtime call out labor not covered by item No. 1 from 4:31 P.M. through 7:29 A.M. Monday through Friday and 4:31 P.M. Saturday through 7:29 A.M. Monday, excluding coverage for L.S.U. football games.
Estimated 50 overtime hours/ year. Service tickets and invoices must be billed at No- Charge

will serve as documentation for the 50 overtime hours.

Cost per month.....See Bid Form

2) Published overtime rates for all overtime hours over 50 per year excluding the coverage for the L.S.U. football games.

Award of this contract to be made based on Monthly Bid Submitted for Item No. 1 multiplied by 12 months plus the bid submitted for Item No. 2.

Note #1. It is noted that the escalators and elevators in the east and west side of Tiger Stadium will be used extensively during football season and then very little during the remaining months. However, these units are to be inspected and run on a monthly basis during the off season and weekly during the months of football season. Three (3) mechanics are to be on standby during all home games. These mechanics shall report to the stadium three (3) hours before the start of any home game and remain until one (1) hour after the completion of the game. For billing purposes maintenance costs are to be priced out on a twelve monthly basis.

Note #2. Timing for Five Year Load Test is governed by the tag on the equipment and the date noted on the Annual Inspection Form, whichever comes first.

ELEVATOR MAINTENANCE

Contractor agrees to provide all material, furnish all labor and services specified in this contract including permits necessary for maintenance (where conditions warrant, adjust, lubricate, repair or replace the mechanical and electrical parts) of the type elevator(s)listed and related equipment located in the facility specified in accordance with the specifications annexed hereto.

All work is to be performed during regular working hours and on the regular working days of the elevator trade unless otherwise specified below.

This contract **DOES** include twenty four (24) hour emergency call-back service.

Contractor, at its expense, shall, within ten (10) days from the commencement date of this contract, provide Owner with a copy of its present maintenance check-list, for his approval, that shall sequentially follow the format of the specifications annexed to this agreement.

Contractor shall complete the aforementioned check list at the times provided in the specifications and regularly provide the Owner with copies thereof.

Notwithstanding anything herein to the contrary, it is expressly agreed and understood that at any time(s) during the term of this contract, Owner shall have the right, but not the obligation, to employ, at its expense, a certified ANSI elevator consultant to make periodic inspections of

the elevators and related equipment (i.e.: smoke detectors, emergency power switches) to determine if said equipment is, in consultant's judgment, being maintained in accordance with the specifications subject to this agreement. The Contractor at his own expense may elect to have a representative present for these inspections. Shall the Owner's consultant determine that the equipment is not being maintained in accordance with the aforementioned specifications, the Contractor shall, at his own expense, correct all noted deficiencies with ten (10) calendar days. Shall the Contractor fail to correct the deficiencies in a timely manner, the owner shall have the right to deduct the estimated cost for repairs from the Contractor's normal monthly payment until such time as the deficiencies are corrected, or to unilaterally terminate the contract without penalty or liability by giving the Contractor ten (10) days written notice by a certified letter. Any re-inspection as a result of the Contractor's failure to maintain the equipment in accordance with the specifications shall be performed at the expense of the Contractor. Payment for subsequent inspection shall be remitted to the Office of Risk Management payable to the inspector. Failure to remit timely payment will result in the cost being deducted from the contract.

Contractor has inspected all elevators and related equipment in the buildings specified and has found same to be in a proper working and satisfactory condition.

Contractor is satisfied that a governor and safety test was made on the elevators/escalators by Kone, Inc. within the past twelve (12) months and therefore Contractor assumes the liability for operation of the governor and safety devices of these elevators and throughout the term of this contract.

Contractor shall not be liable for loss or damage resulting from strikes, lockouts, fires, explosion, theft, floods, riots, war, malicious mischief, storms, acts of God or other similar or dissimilar cases beyond its control. Contractor assumes no liability for accidents to persons or property except those directly due to the negligent acts or omissions of Contractor or his employees. Throughout the term of this contract, Contractor shall at its cost maintain insurance and provide the owner with current certificates of insurance for limits of liability as indicated in insurance requirements section of these specifications (see Attached) (Furnish copies of each policy to the owner.)

Owner agrees that it will not permit others to make alterations, additions, repairs, replacements or adjustments to the equipment subject to this contract, unless contractor is notified by owner, prior to commencement. It is understood that Contractor shall not assume possession or management of any part of the equipment. (The intent is to have the contractor awarded the bid perform the work, however, in the event that equipment has seemingly insolvable problem, the University at it's expense, reserves the right to have other competent contractor(s) examine and make repairs.) In such case the service shall be terminated for that period of time.

MAINTENANCE AND REPLACEMENT PARTS

The following tests and parts lists are subject to check by the University's Facility Services Personnel or their designated representative. If parts are not available in type and number on each unit of vertical transportation covered by these specifications, then the contractor must document that these parts are on order and when they will be placed on the job and in the warehouse.

The maintenance contractor shall have available on request:

1. Complete **as built** and up to date wiring diagrams. (All diagrams will be ordered by the owner at the expense of the elevator contractor only). The cost shall not exceed $200.00 for the first page and $25.00 for each additional page. The total cost cannot exceed $500.00 per set. The diagrams must be delivered within 2 weeks unless an extension is granted by the Department. (This only applies to elevators in which diagrams are not in the owner's possession.)

2. Complete parts leaflets.

3. Engineering data for all load reactions and safety devices.

4. Parts and part numbers of stock listed under MAINTENANCE REPLACEMENTS PARTS to be stocked at the jobsite. Steel parts cabinet, wiring diagrams and maintenance replacement parts to be warehoused in the elevator machine room.

5. When microprocessor control is utilized, the diagnostic tools shall be maintained on the job site. The tools shall be listed under verification of qualifications for the type equipment applicable to this requirement. Up to date and as built wiring diagrams and software are to be kept on the jobsite. Diagnostic tools will be the property of the contractor as will the maintenance and repair of such diagnostic tools.

PERIODIC TESTS REQUIRED:

All tests required by current ANSI A17.1 must be made in the week of the date on which the test is due and shall be documented in writing to the University's Facility Services representative. If this documentation is not received within four months after effective date of contract, monthly payment for maintenance shall be withheld until this report is received. Exception—All five year load test may be conducted as the same time but must be completed and documentation sent to the LSU Facility Services representative and to the Office of State

Buildings and Grounds, by May 31 of the current contract year.

COST CONTROL:

Since elevator shut-downs increase the cost of manpower and slow down the performance of their responsibilities, the tests shall be scheduled by letter.

A. Examine periodically all safety devices and governors and conduct annually a no-load test, and every five (5) years perform a full-load, full-speed test of safety mechanisms, overhead speed governors, car and counterweight buffer. If the tests are due, such tests will be performed at the inception of this contract and thereafter within one week of these dates. Contractor shall be responsible for any damages caused during the performance of any tests. The car balance will be checked and the governor tested and, if required, the governor will be adjusted for proper tripping speed and sealed. Reports shall be submitted to the University Facility Services Office within thirty (30) days of the date the test was made. The report shall include: machine number, manufacturer, type governor, condition, tripping speed, type safety, safety rope pulls out, car slide, pull through force of governor, then the governor setting shall be sealed and tagged with date of test and name of the mechanic performing test. All tests will be performed in accordance with A.N.S.I. A17.1-1987.
All 5 year full load tests must be witnessed by the State Inspection Service Contractor.

B. When necessary renew guide rollers as required to insure a quiet operation.

C. Maintain in each building, at all times for immediate delivery and installation, a sufficient supply of emergency parts for repair of each elevator. This inventory shall include as a minimum, the following for each size and type used. Materials or parts to be used are to be genuine original manufacturer's renewal parts or equal to those furnished with the original installation. Contractor shall maintain an up to date inventory of all spare parts by part number in steel cabinets on the jobsite. The following are the list of parts to be stored on site for each type of elevator covered by these specifications:

1. Coils; minimum of one (1) for each type relay contactor used.
2. Contacts; minimum of three (3) for each type used.
3. Conductor; a supply for each type used.
4. Motor brushes; minimum of one set for each type used.
5. Supply of lubricants for each requirement.
6. Supply of fuses.
7. Interlock rollers and contacts; minimum of two (2) each.
8. Car and hoist way door hanger rollers; minimum of two (2) each type.
9. Car and hoist way door gibs; minimum of one (1) set each type.
10. Car and hoist way door closer parts (springs, spirators, etc.)

11. Door operator belts, chains and brushes; minimum of one (1) set each type.
12. Door operator drive block, clutch rollers, and fingers; minimum of one (1) set each type.
13. Photo electric tube, minimum of one (1) each type.
14. Landing switch equipment and magnetic inductor; minimum of one (1) each type. To include microprocessor boards.
15. Solid state timers and printed circuit regulator board, minimum of one (1) each type.
16. Saf-T-Edge pivot arm assembly and switch; minimum of one (1) each type.
17. Signal fixture lamps; minimum of five (5) each type.
18. Selector cams and contact assembly; minimum of one (1) each type.
19. Brake contact; minimum of one (1) of each type.
20. Normal renewal parts peculiar to equipment covered by this specification.
21.* Supply of selector tapes to handle highest rise.
22. Roller guides and gibs for car and counterweight.
23.* Power supplies and pre-amplifier for electronic proximity device.
24.* Car and hoist way door shields.
25.* Car door electric eye photo cell replacement units.
26. Complete car door safety edge (mechanical).
27.* Transformers and rectifiers for all controller power supplies.
28.* Door operator motors for each type used.
29.* Door operator gear reduction units for each type used
30. Controller and selector coils for each type used.
31. Component parts, including contacts, for each type switch
32. Car and hall buttons, including electronic, with contacts for each type used.
33.* Hatch switch cams supports to handle highest rise.
34. Replacement relay for each type used.
35.* Selector drive motor.
36.* Geared machine brake shoe and lining assembly; minimum of one (1) set for each type.
37. Hydraulic jack packing, or seals, gasket, wiper ring; minimum of one (1) for each type used.
38.* Dash pot and thermal overloads; minimum of one (1) each type.
39.* Hydraulic valves, pistons, springs, gasket/"O" ring kit, solenoid needle, solenoid coil.
40.* Bearings for each type used.
41.* Transformers and rectifiers for all controller power supplies.
42.* Hydraulic valve parts, gaskets, "O" rings and hoses; minimum of one (1) for each type used. Valve includes relief, pilot, lowering, up and check valve, or any of the parts thereof.
43.* Hydraulic fluid (110 gallons) as per original equipment manufacturer's Bid

lubrication
specifications.
44.* Escalator step treads; minimum of two (2) each.
45. Escalator step wheels, minimum of six (6) each.
46. Escalator step chain rollers; minimum of six (6) each.
47. Complete step assembly; minimum of one (1).
48. Handrail brushes; minimum of two (2)
49. Comb plates; minimum six (6) each.

*THESE PARTS MAY BE WAREHOUSED AT LOCATION NEAR JOBSITE.

Following replacement parts are to be available and ready for immediate delivery to the building within twenty-four (24) hours: Seven days shall be allowed to complete repairs.

Rotating elements for each type and size used.
Stators for each type used.
Brake coils for each type and size used.
One complete set of step chains.
One complete set of escalator tracks.
One solid state power converter.

Where any of the parts listed are not required, these may be deleted. The Contractor hereby agrees to allow the facility's authorized person to visit the contractor's parts storage facilities before the effective date of this contract so as to make certain that the inventory is complete and in compliance with the terms set forth.

D. Keep the exterior of the machinery and other parts of the equipment subject to rust, properly painted and presentable at all times. The motor windings and controller coils are to be periodically treated with proper insulating compound.

E. Only use lubricant furnished by the manufacturer of the equipment or those as recommended by the manufacturer.

F. Maintenance parts to be furnished and installed or replaced.

The contractor shall warehouse and have available at all times for immediate delivery and installation, a sufficient supply of emergency parts for repair of each elevator. This inventory shall include, as a minimum, the following for each size and type used. Materials or parts to be used are to be genuine original manufacturer's renewal parts or equal to those furnished with the original installation. The contractor shall maintain an up-to-date inventory of all spare parts by part number in the warehouse or in steel cabinets on the job-site. The following is the list of parts to be kept in inventory for each elevator covered by these specifications.

1. Coils, minimum of one for each type relay used.

2. Contacts, minimum of three for each type used.
3. Conductors; a supply for each type used.
4. Supply of lubricants for each requirement.
5. Motor and generator brushes; minimum of two sets for each type used.
6. Supply of each type fuses.
7. Interlock rollers and contacts; minimum of two of each type.
8. Car and hoist way door hanger rollers; minimum of two of each type.
9. Car and hoist way door gibs; minimum of two of each type.
10. Car and hoist way door closer parts; springs; spirators, etc.
11. Door operator belts, chains and brushes; minimum of one set each type.
12. Door operator drive block, clutch rollers, micro-switches, fingers etc; minimum one of each type.
13. Landing switches and magnetic inductor; minimum of one each type.
14. Solid state timers and printed circuit regulator boards; minimum of one each type.
15. Microprocessor and control boards where required; minimum one each type.
16. Retractable safety arm pivot assembly and switch; minimum of one each type.
17. Signal fixture lamps and indicator's; minimum of five each type.
18. Normal renewal parts peculiar to equipment covered by this specification.
19. Complete car door safety edge. (Mechanical)
20. Roller guides for the car and counterweights: minimum of one set each type.
21. Transformers and rectifiers for controller power supplies; minimum of one each type.
22. Car and hall buttons with contacts for each type used; minimum of one each type.
23. Replacement relay for each type used.
24. Car door electric eye photo cell replacement units.
25. Electronic door detector and infra-red sensors; minimum of one set.
26. Power supplies and pre-amplifiers; minimum of one each type.
27. Selector drives motor for each type used.
28. Door operator motor for each type used.
29. Supply of selector tapes and cables to handle highest rise.
30. Hatch switch cams support to handle highest rise.
31. Geared machine brake shoe and lining assembly: minimum of one set for each type.
32. Dash pot and thermal overloads; minimum of one each type.
33. Bearings for each type used.
34. Hydraulic jack packing or seal, gasket, wiper ring; minimum of one each type.
35. Thermal overloads; minimum of one each type.
36. Hydraulic valves, pistons, springs, gasket/o-ring kit, solenoid needle and solenoid coil. Minimum of one set each type used.

Hydraulic valve parts, gaskets and hoses; including relief valve, lowering, up and Check valve or any parts thereof; minimum one set each type.
Hydraulic fluid; minimum 50 gallons as per original equipment manufacturer's lubrication specifications.

Elevator contractor shall furnish, replace, maintain, adjust, service and install when and as necessary, the following: Machine bearings, motors, pumps, pump bearings, sheaves and sheave assemblies, controllers, selectors, worm gears, thrust bearings, radial bearings, brake magnet, coils, brake shoes, brushes and brush holders, motor & generator windings, rotating elements, commutators, commutations, armatures, overspeed governors, governor shafts and assemblies, governor jaws, gears, bearings, valves, packing glands, rotating elements, contacts, coils, generators, mechanical and electrical driving equipment, condensers, car and hoist way wiring, controller wiring, auxiliary door closing devices, load weighing equipment and devices, car and counterweight frames, car safety mechanism, buffers, platform resistors for operating and motor circuits, machine room lighting, car lighting and transformers, car top lighting, pit lighting, car ventilation fan and fan motor, car emergency lighting, fire- fighters service phase I & II, dispatching systems, hall lanterns, car travel lanterns, starters, indicators and control panels, relay panels, all relays, electrical contacts and coils, control and isolation transformers, rectifiers, shunts, wiring harness, leveling devices, slow down devices, operating devices, switches on the car and in the hoist way, door re-opening devices, top and bottom limit switches, push buttons, annunciators, elevator signal and accessory system circuitry, leveling vanes, jack seals, scavenger pumps, valve body solenoids, hoses, belts, all fuses, terminals, and connections, all car top operating devices, handicap signals, motor couplings, isolation pads, relay leads and wiring connectors, overload devices, corridor position indicators and car position indicators, signal chimes, alarm bell, signal lamps and indicators, hoist way pushbuttons and indicators, timers, hoist way limit switches, computer devices, switch and switch assemblies, electronic circuit boards and discreet solid state components, two way communication devices, door operator motors, door safety edges, infra-red sensors, hoist cables and governor ropes, cable shackles, selector cables and tapes, travel cables, compensation cables, car and counter- eight guide rails and brackets, equipment guards and covers, all sheaves and bearings, magnet frames, leveling devices, cams, car and hoist way door hangers, door tracks and guides, door eccentrics, car and hoist way door gibs, door closures, car door and hoist way door operating devices, interlocks and electric contacts, car and counterweight roller guides and slide guide assemblies. The contractor shall furnish shaft and car light fixtures. The contractor shall furnish and replace signal system lamps. Re-lamping of light and signal fixtures shall be done at least once per month, but more often if required.

All parts shall be of the original manufacturer's design and specifications and not require modification or alteration to the existing equipment.

G. The Contractor shall also examine, adjust, repair and/or replace the following necessary equipment: 2-way communication devices, emergency elevator telephones, exhaust fans, cab lights, all parts for hall lanterns, starters indicator, firemen service, handicap signals and control panels installed and connected into the operating system by the elevator contractor.

H. Annual Cleaning: All steps, walkways, hoist ways, cars and weights shall be cleaned once a year and documented in writing, listing the date each unit was cleaned.

Check Charts: Check charts shall be placed in each machine room. (And must be kept current)

The date each item is checked must be entered in the block (NOT A CHECK MARK). The equipment room shall be clean and free of debris. Control cabinet doors are to be closed when not in use.

The successful vendor will be required to have this form notarized.

ENGINEERING RESPONSIBILITY

WE WILL USE THE FOLLOWING CONSULTING PROFESSIONAL ENGINEER OR ENGINEERING FIRM WHICH MEETS THE CRITERIA OUTLINED IN THE SPECIFICATIONS. THIS ENGINEER WILL CHECK AND APPROVE WIRING, SCHEMATIC AND/OR DESIGN CHANGES.

NAME OF ENGINEERING FIRM _____

ADDRESS _____

CITY OF _____ STATE OF _____

SIGNATURE _____
Licensed Professional Engineer

TITLE _____

REGISTRATION NUMBER: _____

_____ NOTARY

SUBSCRIBED AND SWORN TO, THIS _____ DAY OF _____ 20_____.

The contractor's engineering department may make application with the Louisiana State Board of Professional Engineers, 10500 Coursey Blvd., Suite 107, Baton Rouge, LA 70818-4045. The Department understands there will be a waiting period of approximately 60 days to process this application.

Successful bidder will be required to have this form notarized.

In keeping with the specifications, the vendor shall demonstrate that he has successfully maintained for a period of twelve (12) months within the past five (5) years the following elevator plants of the same type and control to those elevators specified in this bid. In lieu of the above, in complying with the specifications, the vendor may submit a list of fulltime journeyman mechanics who have successfully maintained elevator plants of the same type and control to those elevators specified in this bid together with a list of the plants, the number of

elevators, the address of the elevator plant and the name and telephone number of a contact person at the location of the elevators in question. This information shall be submitted with the bid. However, if not, the Department reserves the right to request this information from the bidder(s). If requested, the contractor will have five (5) days to provide this information to the department. Failure to comply will be cause to reject the bid.

Building Name Address

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

We also have and own the following tools and written procedure designed specifically for programming and adjusting these elevators. List the tools and also the type of microprocessor applicable to this equipment:

1. _____

2. _____

3. _____

4. _____

Date _____ Signed _____

By _____ Title _____

Successful bidder will be required to have this form notarized.

NON-COLLUSION AFFIDAVIT

State of _____

Parish of _____

_____, being first duly sworn, deposes and says that:

He is (owner) (partner) (officer) (representative) or (agent), of _____, the bidder that has submitted the attached bid.

Such bid is genuine and is not a collusive or sham bid.

Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties of interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the contract for the attached bid or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly sought by agreement or collusion or communication or conference with any other bidder, to fix any overhead, profit or cost element of the bid price or bid price of any bidder, or to secure through any advantage by using contacts through _____or any person interested in the proposed contract.

The price or prices quoted in the attached bid are fair and proper and are not tainted by collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties of interest, including this affidavit.

_____ Notary

Subscribed and sworn to, this _____ Day of _____ 20 _____.

CLARIFICATIONS

MAINTENANCE:

The maintenance of vertical transportation covered by this contractual agreement shall include all parts, including replacements that have been modified or updated, all labor and the performance of all tests, along with the frequency of examinations as required here-in by these specifications unless specifically excluded.

Exclusions:
Hoist way entrance frames and door panels.
Car enclosure.
Finishes.
Floor covering.
Car light bulbs and fluorescent tubes(Call backs will **NOT** include maintenance of car lights and exhaust fans. These items will be maintained during regular visits).
Hydraulic casing or buried pipes.
Escalator panels, decks, trim and skirts unless damage is caused by misalignment of steps.
Smoke detectors, emergency power switches and other non-elevator controls. (All equipment included in the elevator hoist way and machine room related to the operation or function of emergency power and firemen's service, Phase I and Phase II, shall be part of the elevator contract. The point at which these devices are attached to the controller shall be the dividing line between the elevator contractor's responsibility and other contractors).

Or Equal:
Or equal, shall be measured as identical replacement of part or component installed by the manufacturer or a part or component proven superior. In no case shall a part or component with smaller parts or horsepower be considered equal or will a part that requires any modification to existing equipment be acceptable unless the part is a modification recommended by the engineering department of the original manufacturer.

Vandalism:
Misuse of the term vandalism will not be accepted as extra cost to the owner. Vandalism shall be defined as the intent to destroy. Contractor shall immediately notify building owner of any misuse, abuse or accidental damage and document incident before owner accepts as extra cost. Contractors will not be responsible for misuse, abuse, or accidental damage by others.

Performance:
Performance shall be measured by that which was designed and built into the original installation. Eliminating the operations or shunting any circuits without written permission shall give the owner the right to terminate the contract.

Nuisance Calls:

A nuisance call shall be defined as a call where the elevator shut-down was caused by a known or unknown source, and is outside the scope of contract, but the call is answered by the elevator personnel not knowing the cause. If time at the building is one (1) hour or less (to be documented by a person at the building), the cost is to be absorbed by the contractor. Any fraudulent documentation shall be cause for cancellation of the contract.

Non-Performance:

If any vertical transportation is out of service for more than seven (7) days, (WITHOUT PERMISSION IN ADVANCE).
If a call is not answered in less than two hours.
Any failure to perform regular inspections within two (2) days of schedule or falsifying records.
Failure to correct problems on the third call-back.
Failure to follow and document maintenance procedures and frequencies with the owner each trip.
Non-compliance with minimum performance standards. Failure to meet the preceding requirements shall give the owner the right to suspend payments for that period of time at regular monthly billing rates or terminate the contract.
Failure to submit monthly "call tickets", maintenance records and test reports.

FREQUENCY OF REGULAR EXAMINATIONS

IT IS ABSOLUTELY NECESSARY TO LUBRICATE ADJUST AND CHECK OPERATION OF ALL UNITS OF VERTICAL TRANSPORTATION AT REGULAR INTERVALS AND ANYTHING LESS WILL PLACE THE CONTRACTOR IN DEFAULT. A CALL-BACK MUST BE ENTERED IN THE RECORDS AS JUST WHAT IT IS AND WILL NOT BE LISTED AS AN INSPECTION. INSPECTIONS WILL BE MADE ON SCHEDULE. A ROUTE SHEET WILL BE FURNISHED FOR OWNERS RECORD AND FOLLOW-UPS.

EACH VISIT TO THE BUILDING MUST BE DOCUMENTED AND SIGNED BY THE BUILDING REPRESENTATIVE. INVOICES WILL NOT BE PAID UNTIL THE ABOVE INFORMATION IS RECEIVED BY THE UNIVERSITY FACILITY SERVICE PERSONNEL.

THE CONTRACTOR SHALL HOLD MONTHLY MEETINGS WITH L.S.U.'S REPRESENTATIVE TO REVIEW ALL WORK PERFORMED DURING THE PREVIOUS WEEKS. CONTRACTOR WILL FURNISH WRITTEN MAINTENANCE REPORTS ON ALL WORK PERFORMED ON EACH ELEVATOR DURING THE PREVIOUS WEEKS.

(COPIES OF YOUR RECORDS, WHICH INCLUDE BUILDING REPRESENTATIVE'S SIGNATURE, WITH INVOICES WILL BE SATISFACTORY)
A REPAIR WHICH RESULTS IN DOWN TIME OR NOT COVERED UNDER THIS CONTRACT MUST BE LISTED AS JUST WHAT IT IS AND MUST BE SCHEDULED WITH THE ABOVE OFFICE BEFORE PROCEEDING.

A CHECK SHEET MUST BE MAINTAINED IN EACH MACHINE ROOM MARKED WITH DATES, NOT CHECK MARKS.

Obsolete parts shall be certified by the manufacturer and approved by the department.
If a part becomes obsolete during the period of the contract, it is the contractor's responsibility

to replace the part and the owner's responsibility for expenses incurred to perform the modification, i.e. piping, electrical.

The contractor shall (upon request) provide proof of having successfully maintained five (5) elevators of the same type and control for a period of twelve (12) months within the past five (5) years. In lieu of the above, the contractor shall (upon request) submit a list of full time journeyman mechanics who have successfully maintained five (5) elevators of the same type and control for a period of twelve (12) months within the past five (5) years as stipulated in the affidavit of qualifications. The contractor shall have a minimum of two (2) mechanics and one (1) helper for each forty (40) elevators under maintenance in the **local area**, for the State of Louisiana.

Normal response time to be no more than (1) hour, during normal working hours as set forth in the specifications. Response time shall not require more than 2 hours arriving on the site, after normal work day hours. However, in the event someone is trapped in an elevator, response time shall be no more than 30 minutes.

Failure to meet these response times will be cause for cancellation of the contract.

It is understood that parts required to be maintained on the premises remain the property and responsibility of the contractor.

Whenever these documents refer to the state employing others to perform inspection services, they will be required to be a certified ANSI inspector.

THE OWNER RESERVES THE RIGHT TO HAVE A CONSULTANT CHECK AND MAKE A REPORT ON CONDITIONS AS HE FINDS THEM. IF SUCH CONDITIONS ARE NOT CORRECTED BY THE NEXT REPORT, OR THE ELEVATOR CONTRACTOR CAN NOT FURNISH A VALID REASON FOR THE DELAY, THE OWNER RESERVES THE RIGHT TO EMPLOY ANOTHER ELEVATOR CONTRACTOR TO COMPLETE THE WORK. THE ACCUMULATED COSTS OF SUCH EXPENDITURE WILL BE BILLED TO THE CONTRACTOR AS A CONTRACTUAL OBLIGATION.

CALL-BACKS:

WHERE OVER-TIME CALL-BACKS ARE INCLUDED IN THE MAINTENANCE CONTRACT THE ELEVATOR CONTRACTOR MAY ANSWER THE CALL WITH-OUT OBTAINING AUTHORIZATION.

WHERE OVER-TIME CALL-BACKS ARE EXCLUDED, THE CONTRACTOR MUST OBTAIN AN AUTHORIZATION FROM ONE OF THE PERSONS LISTED BELOW, OR THE COST WILL NOT BE APPROVED AND PLACED IN-LINE FOR PAYMENT BY THE ACCOUNTING DEPARTMENT.

THE FOLLOWING ARE PERSONS WHO MAY APPROVE ANSWERING AN OVER-TIME CALL-BACK.

Paul Favaloro

Ray Dudley

John Kojis

David Perault.

_____

_____

_____

_____

_____

_____

MAINTENANCE PROCEDURES

Minimum equipment performance standards and preventive maintenance required under this contract.

Frequency of inspection shall be as follows: Semi-Monthly

Type: Geared passenger elevators:

Specific equipment performance standards:

Call backs: Nominally 4 to possibly 6, excluding nuisance calls, per year average.

Minimum expected periodic service check, oil, or adjust:

Weekly: Ride each car, check operation and correct problems found.

Every two weeks: Observe operation of control, selector, machine, brake, motor, mg set, clean and adjust as needed. Check lubrication of machine, motor, mg set, and overhead sheaves.

Every four weeks: Check lubrication of door operators and selectors.

Every 13 weeks: Check waiting times on corridor calls, test and record rectifier voltages of control supply, check car doors and door operator adjustment and check hoistway doors. Check all hoist ropes, lubricate and adjust as required. Lubricate selector tapes or steel air cords and clean as needed.

Every 26 weeks: Lubricate (graphite/slipit) pushbutton guides, check overload relays and mark tripping time and date on tag and fasten to relay. Clean and examine saf-t-edge, roller guide shoes, lubricate, adjust and replace worn or damaged ones.

Every 52 weeks: Clean and check all control stations, car and corridor, clean and check hoistway switches, controllers and selectors including all electrical connections for tightness, burning or oxidation. Check all safety equipment to see that it operates freely and lubricate if needed. Perform full brake check, oil, and adjust; check worm and gear clearance.

Other: Machine bearings shall be drained, flushed, and refilled each year and a half, and the door operator gear case every 4 years.

Door and door operation: Frequency of inspection and adjustment shall be covered hereafter.

Car and hoistway doors: Clean and lubricate track and hangers as needed. Check backplate and hanger to door fastenings, and relating devices, to insure tightness. Check up-thrust adjustment and fastening (nominal 0.010" to track), shall clearance exceed 0.035" it shall be readjusted.

Check and lubricate the door closing device, check fastening, set closing adjustment to permit the doors to close without power and without interfering with the action of the saf-t-edge during door reversal. Door interlock adjustment shall be set to permit the latch to drop within 3/8" but preferably less if full closure can be obtained. Check contact setting for pressure and contact wipe. Bottom door guides shall be fastened tight and replaced when the panel may be moved in and out by 1/4" or more. Check and tighten non-vision wings or sight guards at each inspection. Car door contact shall prevent movement of the car unless the car door is 2" or less from being fully closed.

Saf-t-edge: This device shall be check quarterly for freedom of movement to permit it to operate with a somewhat glancing blow, but not sloppy, permitting it to rub against door. where retractable, projection at opening shall be slight and permit the door to be held open with pressure on the edge, in closing, the edge shall permit door to reopen with 1-1/2" of full closure or less. Reopening action shall be such that reversal of the door movement will occur at such a point or before the leading edge of the vane and door are in the same plane, i.e. at or before complete collapse of the edge. Active contact line of edge shall be free of cuts or bulges. Control contact cable and retracting cable, when used, shall be held clear of snagging on other parts.

Door operator: Check, lubricate, and adjust quarterly. Where gear operators are used, gear oil level shall be check and the unit cleaned and flushed and refilled within five years. Opening motion shall be at designed speed with smooth start, slowdown and stop, with particular care being taken to avoid drag in the opening action as the door reaches full open position. Closing time shall be adjusted to limit kinetic energy to that specified by the current code, permit reversal with in travel and to avoid drift after the saf-t-edge has been activated.

Control:

Regular inspection and adjustment as outlined herein before. The effects of control fault can be most easily detected for individual car operation by riding the unit and observing operation. At each scheduled control inspection the operation of the relays in the panel in normal service can suggest trouble areas, erratic relay operation or contact sparking. If the control includes solid-state modules or cards these shall be checked periodically for loose clips, cold solder joints and open circuits. Touch-up adjustment suggested by these observations can frequently avoid drift off of adjustment and a major tune up, or failure of a more serious nature. Mechanical check of relay operation can best be done with power off testing contact pressure and wipe, as well as friction where relays appear sluggish. At first power cut off check frequent operating relays for overheating by touch. This shall be done particularly for relays in the circuit where undue sparking is apparent. At the same time transformers and rectifiers shall be checked for heat. The rectifier voltage shall be periodically checked and compared to posted values, confirming periodic check and recording variation, if any. Contacts shall be found to be clean if contact wipe is sufficient and they shall only be dressed if they have developed ridges, blisters, or if they are excessively pitted. Shall the condition be beyond correction they shall be

replaced. On occasion pins or relay fulcrum points may give rough or sluggish relay action and may need slight lubrication or dressing. Proper values of timing relays shall be posted on the control cabinet or panel and checked at control inspection schedule. Particular attention shall be paid to all overloads and phase failure relays where they are used checking adjustment and freedom of movement. A log of corrections and adjustments of each controller, studied at each scheduled inspection can be a time saver in clearing troubles and preventive maintenance adjustment. Contractor is advised that any burnout and/or fire damage to the elevator equipment due to normal equipment malfunctions or negligence in service or repair is the contractor's responsibility.

Selector: Operation shall be observed every two weeks, lubricating the traveling nut carriage bearings, cams, and shafts as needed, and the ball bearings, hinge pins and lever pins, and the leveling switch magnet cores every 6 months, with the leveling switch rollers to be lubricated every 2 months. Tapes shall be lubricated every 3 months and cleaned as required.

Machine Motors, and Motor Generator Sets:

Machine bearings shall be checked every two weeks for oil leakage, throwing away the oil which has dripped from the worm gland (some oil leakage at the gland prevents galling the wormshaft) check the work gear clearance at the time the brake is dismantled by turning the brake drum to see how far it may be moved before the drive sheave moves. On machines which can be reset, gear or worm may have to be recalibrated which shall be done on those machines where the movement is ½ to 1" i.e. when clearance between worm and gear (nominally 0.005") exceeds 0.075". Gear rock is virtually impossible to take out by recalibration and can only get worse. Also note when clearance can no longer be taken up, as we can no longer lower the gear, gear rock cannot be eliminated, and replacement is inevitable. (worms and gears are not shelf items and require 3 to 6 months lead time). Clean, flush, and replace worm gear oil every 1-1/2 years, examine oil wiper between drive sheave and gear inside the machine to reduce oil seepage to drive sheave. Drive sheaves may be regrooved but never so deep that the metal below the groove is less than 1/2". If there is any chance that cutting the groove might be getting close to the 1/2" minimum the sheave shall be replaced.

Machine Brake: Shall be thoroughly cleaned, lubricated, and checked for freedom of operation, at least once a year. Since this requires dismantling for thorough inspection and lubrication, counterweights shall be landed. The brake shall be set to handle 125% of full load and was so set at initial adjustment. To retain this setting, compressed length of the brake springs shall be measured before dismantling and restored in reassembly. This length shall be checked periodically and the spring/springs readjusted as the shoes are brought closer to the brake pulley to compensate for brake lining wear. Lining shall be replaced before wear reaches a point where the drum could be scored. Check operating armature and its guide for excessive wear to avoid erratic brake operation.

Motor MG Set: Check bearings for heating and lubrication every two weeks, check brushes and commutators for wear and color. Care shall be exercised in brush wear, brush pressure and the

type brushes used. Using the wrong brushes, the wrong pressure and allowing brushes to get too short will cause excessive wear on the commutator bars and eventually require turning and undercutting. Blow out yearly, check insulation of coils and apply insulating paint every three years. Dry and brittle insulation can result in a burnout and fire. It must be remembered that coils in stock can get brittle and their insulation shall be examined and restored as needed.

Hoistway Equipment:

Car and corridor stations: Shall be opened up each year for cleaning and each switch examined for positive action, contact pressure, wear and wipe. All connections shall be checked to see that they are tight.

Hoistway Switches: Shall be checked for contact pressure, wear, and wipe, quarterly where involved in the landing of the elevator, annually for all safety equipment, slowdown and limits.

Safety Equipment: Shall be checked for freedom of movement yearly and lubricated as required, with governor and its tension sheave lubricated each quarter, oil buffers shall be checked for oil level yearly. Note: Shall water level in pit rise above buffer reservoir, buffers shall be drained, flushed, and refilled.

Overhead Deflector Sheaves: Check lubrication and grooves annually, same stipulation to regrooving and groove depth as for drive sheaves.

Guide rails and roller guides: Shall be cleaned annually, roller guides adjusted to rail where this is applicable, check guide oilers and refill as required where they are used. Shall a safety have set for any reason, rail shall be examined carefully for possible scoring and filed as needed.

Cables: Shall be examined every 13 weeks. Check control cables for cover deterioration which may be corrected by re-taping unless the individual wire insulation is affected or major portions of the cover are brittle. If wires are exposed, the traveling conductors or control cables shall be replaced. When re-taping a portion of a control cable, it shall be done in such a manner that the ends of the tape do not become loose and hang down where they may become caught on an object in the hoistway. Guards or pads may be required to cover points which may cause traveling conductor abrasion. If this precaution is taken after your original survey, an expensive replacement and time consuming repairs might be avoided. Governor and hoist cables (hoist ropes) shall be examined for breaks, particularly in the valley of the cable or rope which could indicate internal breakage and ultimate strand separation. Hoist cables (hoist ropes) may need cleaning, and on occasion, dressing with rope lubricant. Governor cables (governor ropes) shall not be lubricated so as to assure consistent setting of the governor trip. If there is any sign of deterioration of the governor rope, a new rope shall be installed and the safety device tested to be certain that the new rope functions properly.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

Frequency of Inspections: Weekly

Each inspection must be signed for by the owner's representative.

Gearless traction with group supervisory control:

Specific Equipment Performance Standards:

Call-backs: Nominally 6 to possibly 8, excluding nuisance calls, per year average per elevator.

If Door Light Ray Is Used:

Door Operator: The door closing speed must be within the limits of the current ANSI code. On car calls, doors can close 0.9 to 1.6 seconds after the last passenger clears the light ray. On a 1st floor or lobby call, doors can be set to close, 4 to 7 seconds after the last person has cleared the light ray. If variable car call and hall call time are used, the hall calls shall be set for walking distance at upper floors.

If Load Weighing Is Used For Dispatching: (Use percentage of load for dispatching)

Nudging: Effective after 20 seconds +/- 10%, depending on traffic patters. The doors shall close, with a buzzer sounding, stopping only when the saf-t-edge is collapsed and then the doors shall not reopen. If the manufacturer's manual has specific procedures, then the manual shall be followed.

Call Response Time: The nominal expectation is that a call will be answered in an average waiting time of 25 to 30 seconds when all cars are in operation. Shall the average corridor waiting time exceed 40 seconds with all cars running, a system failure is possible and the cause shall be investigated. If all cars are not running during any peak period then the reason shall be investigated.

Annual Test: The contractor will be expected to assist the building maintenance personnel or a representative selected by the management in making a check of the system performance each year, (120 days) before the anniversary date of the contract. The contractor will be expected to make all corrections before this anniversary date arrives.

Floor Levels: The car is to be level in accordance with the ANSI-code.

Check Chart:

Minimum expected periodic servicing, checking, oiling, and adjustments: If your standards require more frequent checks it shall be posted on your check chart.

Weekly: Ride car, check operation and correct problems found.

Every Two Weeks: Observe operation of control, machine, brake motor, and mg set, clean and adjust as needed. Check lubrication of machine motor and mg set.

Every 13 Weeks: Check call response of supervisory control, test and record rectifier voltages of supply, governor and governor tail sheave, normal landing switches, door operator, door operation, car doors and then first and basement hoistway door adjustment, check all cables, adjust, correct and lubricate as required.

Every 26 weeks: Clean and examine Saf-T-Edge, roller guide shoes, lubricate, adjust and correct as necessary.

Every 52 weeks: Clean and check all control stations, car and corridor, clean and check hoistway switches, control and relay panels, all electrical connections shall be checked to see that they remain tight, clean and check hoistway doors 2nd through top floor, check all safety equipment to see if operates freely, lubricate and adjust as needed. Full brake check, oil and adjustment.

Other: Machine bearings shall be drained, oil leaks sealed, flushed and refilled each year. The door operator gear case shall be drained, flushed and refilled every five years.

Doors and Door Operation: Frequency of inspection and adjustment covered above.

Car and Hoistway Doors: Clean and lubricate track and hangers as needed. Check backplate and hanger to door fastenings, and relating devices to insure tightness. Check up-thrust adjustment and fastenings (nominal 0.010" to track), shall clearance exceed 0.035" it shall be adjusted. Door relating cables shall be taut enough that they do not sag in normal opening and closing of the doors but provide some flexibility in door reversal to reduce the shock of reversal on the door hanger cables and fastenings. Door interlocks adjustment to be set to permit the latch to drop within 3/8" or less of full closure. Check and tighten non-vision wings or signet guards at each inspection. Check spirator adjustment to insure that doors will close without any aid or power applied yet not interfere with saf-t-edge reopening action. Car door contact shall be set to prevent car movement unless the door is 2" or less from full closure.

Saf-t-edge: Device shall be checked quarterly for freedom of movement to permit it to operate with a somewhat glancing blow, but not sloppy permitting it to rub against door. Where retractable projection at opening shall be slight to permit the door to be held open with pressure on the edge, in closing, edge shall permit door to reopen within 1-1/2" of full closure or less. Reopening action shall be such that reversal of the door movement occurs at such a point or before the leading edge or the vane and door are in the same plane, i.e. at or before complete

collapse of the edge. Active contact line of the edge shall be free of cuts or bulges. Control contact cable and retracting cable, where used, shall be held clear of snagging on other moving parts.

Door Operation: Shall be checked at least quarterly, cleaned and adjusted as required. Here again, cable connections are involved with possible snagging. It is important that the effect of adjustment be recognized as well as the possible interference of the saf-t-edge as the line of projection reaches the target limits. Each scheduled inspection shall include a through check of the ray focus and intensity under varying movement of the doors and their attachments. Check and record time settings.

Door Operator: Check, lubricate, and adjust quarterly. Where geared operators are used, gear oil level shall be checked and the unit drained, flushed and refilled within five years. Opening motion shall be at design speed with smooth start, slowdown and stop, with particular care being taken to avoid drag in opening action as the door reaches full open position. Drag at this position can prevent full opening of the door and drop out of the opening relay, preventing the door from closing. Closing time shall be adjusted to that given herein above. Closing adjustment shall permit door reversal within travel of the saf-t-edge as above and without further drift.

Control:

Regular inspection and adjustment as outlined herein above. The effects of control fault can be most easily detected for individual car operation by riding the unit and observing operation. At each scheduled control inspection the operation of the relays in the panel in normal service can suggest trouble areas, erratic relay operation or contact sparking. Touch up adjustment suggested by these observations can frequently avoid drift off or adjustment and a major tune up, or failure of a more serious nature. Mechanical check of relay operation can best be done with the power off testing contact pressure and wipe, as well as friction where relays appear to be sluggish. At first power cut off check frequent operating relays by touch for overheating. This shall be done particularly for relays the circuits where undue sparking is apparent. At the same time transformers and rectifiers shall be checked for heat.

The rectifier voltage shall be periodically checked and compared to posted values, confirming periodic check and recording variation, if any. Contacts shall be found to be clean if contact wipe is sufficient, they shall only be dressed if they have developed ridges, blisters, or are excessively pitted. Shall this condition be beyond correction they shall be replaced. On occasion pins or relay fulcrum points may give rough or sluggish relay action and may need slight lubrication or dressing. Proper values of timing relays shall be posted on the relay cabinet or panel and checked at control inspection schedule. Particular attention shall be paid to all overload and phase failure relays where they are used for checking adjustment and freedom of movement. A log of corrections and adjustments of each controller, studied at each scheduled inspection can be a time saver in clearing troubles and preventive maintenance adjustment. Contractor is advised that any burnout and/or fire damage to the elevator equipment due to

normal equipment malfunctions or negligence in service or repair is the contractor's responsibility.

Group Supervisory Control: Shall be checked quarterly for relay operation as in the individual car control. In addition the maintenance man shall check the response time to corridor calls, this shall be done by checking the time of call cancellation or a series of calls during a heavy service period, making sure that most fall within the nominal times given under performance standards. If the system shall not be busy, up and down relays may be actuated from the board. In this case the time checks shall be toward the lower end of the nominal time. Make sure that all cars are in service by, if necessary, placing car calls to start the mg set of each elevator. Shall the response times be sluggish (above the nominal) with all cars running, it may be necessary to check all adjustments, even those required annually under performance expectations.

Machine Bearings, Motors, And Motor Generator Sets:

Machine bearings: Shall be checked every two weeks for oil leakage. Motor fields shall be checked for insulation, overheating. Commutators shall be checked for burning and arcing. Brushes shall be made of a grade that will provide good commutation without cutting or scoring.

Machine Brake: Shall be thoroughly cleaned, lubricated and checked for freedom of operation, at least once a year. Since this requires dismantling for a thorough inspection and lubrication, counterweights shall be landed. The brake shall be set to handle 125% of full load. To retain this setting, the compressed length of the brake springs shall be measured before dismantling and restored in reassembly. This length shall be check periodically and the spring/springs readjusted as the shoes are brought closer to the brake pulley to compensate for brake lining wear. Lining shall be replaced before wear reaches a point where the brake drum could be scored. Check operation armature and its guide for excessive wear to avoid erratic brake operation.

Motor MG Set: Check bearings for heating and lubrication every two weeks, check brushes and commutators for wear and color. Care shall be exercised in brush wear and the type brushes used. Blow out yearly, check insulation of coils and apply insulation paint every three years. Dry and brittle insulation can result in burn out and fire. It must be remembered that coils in stock can get brittle and their insulation shall be examined and restored as needed.

Hoistway Equipment:

Hoistway Switches: Shall be checked for contact pressure, and wipe, quarterly where involved in the landing of the elevator, annually for all safety equipment, slowdown and limits.

Safety Equipment: Shall be checked for freedom of movement, set by hand yearly and lubricated as required, with governor and its tension sheaves lubricated each quarter, and oil

buffers shall be checked for oil level yearly. Note: Shall the water level in the elevator pit rise above the oil reservoir, buffers shall be drained, flushed and refilled.

Overhead and Deflector Sheaves: Check lubrication and grooves annually, same stipulation to regrooving and groove depth as for drive sheaves.

Guide Rails and Roller Guides: Shall be cleaned annually, and roller guides adjusted to rail where this is applicable. Check guide oilers, where they are used, and oil as required. Shall a safety have set for any reason, rails shall be examined carefully for possible scoring and filed where necessary to restore a smooth surface.

Car and corridor stations: Shall be opened each year for cleaning and the switches each examined for positive action, contact pressure, wear and wipe. All connections shall be checked to see that they are tight.

Cables: Shall be examined every 13 weeks. Control cables or traveling conductors for cover deterioration which may be corrected by retaping unless individual wire insulation is affected or major portions of the cover are brittle. Guards may be required to cover points which may cause traveling cable abrasion. Governor cables and hoist cables/ropes shall be examined for breaks, particularly in the valley of the cable which could indicate internal breakage and ultimate strand separation. Hoist cables may need cleaning, and on occasion, added lubricant (rope dressing). Governor cables shall not be lubricated in order to assure consistent setting shall the governor trip.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

Other geared units:

Frequency of Inspections: Semi-Monthly

Each inspection to be signed for by the owner's representative.

Call-back standards: Nominally expected 4 per year to 8 excluding nuisance calls.

Minimum expected periodic servicing, checking and adjustments.

Every two weeks: Ride the car, observe operation of control, machine, brake and motor. Clean and adjust as needed, check lubrication of machine and motor.

Every 13 weeks: Test and record rectifier-voltages of control supply, normal landing switches and door operator.

Every 26 weeks: Check governor and governor tail sheave lubrication, all cables, adjust and lubricate as required. Clean and examine saf-t-edge, guide shoes, lubricate and adjust as needed.

Every 52 weeks: Clean oil and adjust all door hangers, check all control switches in hatch, including car and corridor stations. Thoroughly check all control parts in machine room, brake, machine, check gear clearance. Make sure all electrical connections are tight.

Other: Machine bearings shall be drained, flushed and refilled every two years and the door operator every 4 years.

Doors and door operation: Frequency of inspections and adjustment shall be as herein before.

A) Car and Hoistway Doors: Clean and lubricate track and hangers as needed. Check backplate and hanger to door fastenings, relating devices to insure tightness. Check up-thrust adjustment and fastening (nominal 0.010" to track), shall clearance exceed 0.035" it shall be adjusted. Check tightness of relating devices. Door interlocks adjustment to be set to permit the latch to drop within 3/8" or less of full closure. Check contact setting for pressure and contact wipe. Bottom door guides shall be fastened tight and replaced when panel may be moved in and out by 1/4" or more. Check and tighten non-vision wings/sight guards at each inspection. Final latch cam and spring adjustment to be set to fully close the door to locking position when within 1" to 1-1/2" of full closure. Car door contact shall be set to prevent car movement unless door is 2" or less from full closure.

B) Saf-t-edge: Device shall be checked semi-annually for freedom of movement to permit it to

operate with even a somewhat glancing blow, but not sloppy permitting it to rub against door. Where retractable projection is used at the opening it shall be slight but permit the door to be held open with a slight pressure on the edge, in closing, edge shall permit door to reopen within 1-1/2" of full closure or less. Reopening action shall be such that reversal of the door movement will occur at such a point or before the leading edge of the vane and door are in the same plane, i.e. at before the compete collapse of the edge. Active contact line of the edge shall be free of cuts or bulges. Control contact cable, and retracting cable, where used, shall be held clear of snagging on other moving parts.

C) Door Operator: Check, lubricate, and adjust quarterly. Where gear operators are used, gear oil level shall be checked and the unit cleaned and flushed and refilled within five years. Opening motion shall be at design speed smooth start, slowdown and stop, with particular care being taken to avoid drag in the opening action as the door reaches full open position. Closing time shall be adjusted to comply with the current requirements on kinetic energy and smooth start and stop. Closing adjustment shall permit door reversal within travel of the saf-t-edge as above without further drift.

Control:

Regular inspection and adjustments as outlined above. The effects of control fault can be most easily detected for individual car operation by riding the unit and observing operation. At each scheduled control inspection the operation of the relays in the panel in normal service can suggest trouble areas, erratic relay operation or contact sparking. Touch up adjustment suggested by these observations can frequently avoid drift off of adjustment and a major tune up, or failure of a more serious nature. Mechanical check of relay operation can best be done with the power off, testing contract pressure and wipe, as well as friction were relays appear sluggish. At first power cut off check frequent operating relays for overheating by touch. This shall be done particularly for relays in the circuit where undue sparking is apparent. At the same time transformers and rectifiers shall be checked for heat. The rectifier voltage shall be periodically checked and compared to posted values, confirming periodic check and recording variation, if any.

Contacts shall be found to be clean if contact wipe is sufficient, they shall only be dressed if they have developed ridges, blisters, or are excessively pitted. Shall the condition be beyond correction they shall be replaced. On occasion pins or relay fulcrum points may give rough or sluggish relay action and may need slight lubrication or dressing. Proper values of timing relays shall be posted on the control cabinet or panel and checked at control inspection schedule. Particular attention shall be paid to all overload and phase failure relays where they are used checking adjustment and freedom of movement. A log of corrections and adjustment of each controller, studied at each scheduled inspection can be a time saver in clearing troubles and preventive maintenance adjustment.

Machine Bearings and Motors:

Machine bearings: Shall be checked every three weeks for oil leakage, throwing away oil which has dripped from worm gland (some oil seepage at the gland prevents galling of the worm shaft). Check worm and gear clearance at the time the brake is dismantled by turning the brake drum to see how far it may move before the drive sheave moves. On machines which can be reset, the gear shall be lowered when this movement exceeds 1/4"; when the movement exceeds this value, gear or worm may have to be recalibrated, this shall be done on those machines where the movement is 1/2" to 1" i.e., when clearance between worm and gear (nominally 0.005") exceeds 0.075", gear rock is virtually impossible to take out by recalibration and can only get worse. Also note when clearance can no longer be taken up as we can no longer lower the gear, gear rock and replacement is inevitable. (Worms and gears are not shelf items and require 3 to 6 months lead time.) Clean, flush and replace worm gear oil every 1-1/2 years, examine oil wiper between drive sheave and gear inside the machine to reduce oil seepage to drive sheave. Drive sheaves may be regrooved but never if the regrooving will approach the depth of leaving less than 1/2" of solid metal below the groove.

Machine Brake: Shall be thoroughly cleaned, lubricated and checked for freedom of operation, at least once a year. Since this requires dismantling for a thorough inspection and lubrication, counterweights shall be landed. The brake shall be set to handle 125% of full load and was so set at initial adjustment. To retain this setting, compressed length of the brake springs shall be measured before dismantling and restored in reassembly. This length shall be checked periodically and spring/springs readjusted as the shoes are brought closer to the brake pulley to compensate for brake lining wear. Lining shall be replaced before the wear reaches a point where the drum could be scored. Check operating armature and its guide for excessive wear to avoid erratic brake operation.

Motor MG Sets: Check bearings for heating and lubrication every two weeks. Care shall be exercised in brush wear and the type brushes used. Blow the units out yearly, check insulation, and repaint with insulating varnish every three years. Dry and brittle insulation can result in a burn out and fire. It must be remembered that coils in stock can get brittle and their insulation shall be examined and restored as needed. It must be remembered that a fire originating in the apparatus is your responsibility.

Hoistway Equipment:

Hoistway Switches: Shall be checked for contact pressure, wear and wipe quarterly where involved in the landing of the elevator, annually for all safety equipment, slowdown and limits.
Safety Equipment: Shall be checked for freedom of movement yearly and lubricated as required, with governor and tension sheave lubricated each quarter, oil buffers shall be checked for oil level yearly. Note: Shall water level in pit rise above buffer reservoir, buffers shall be drained, flushed and refilled.
Overhead and Deflector Sheaves: Check lubrication and grooves annually, same stipulation to regrooving as groove depths for drive sheaves.
Guide rails and roller guides: Shall be cleaned and checked annually, roller guides adjusted to rail where this is applicable. Check guide oilers and fill as required where they are used. Shall

a safety have set for any reason, rails shall be examined carefully for possible scoring.
Car and Corridor Stations: Shall be opened each year for cleaning and the switches each examined for positive action, contact pressure, wear and wipe. All connections shall be checked to see that they are tight.

Cables: Shall be examined every 13 weeks. Control cables or traveling conductors for cover deterioration which may be corrected by retaping unless individual wire insulation is affected or major portions of the cover are brittle. When retaping care shall be taken to secure the ends so that they do not hand on hoistway equipment. Guards may be required to cover points which may cause traveling cable abrasion. Governor and hoist cables shall be examined for breaks, particularly in the valley of the cable which could indicate internal breakage and ultimate strand separation. Hoist cables may need cleaning and on occasion added lubricant (rope dressing). Governor cables shall never be lubricated. They shall remain dry in order to assure consistent setting shall the governor trip.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

Frequency of Inspections: Monthly

Each inspection must be signed for by the owner's representative.

Hydraulic freight elevators:

Call-backs: Nominally 4 to possible 6 per year average excluding nuisance calls.

Minimum expected periodic service, check and adjustment:

Every four weeks: Ride or move the unit observing operation, adjust as needed.

Every 13 weeks: Check freight doors and their operation and adjustment.

Every 52 weeks: Clean, oil and adjust all cupped doors, check control and control stations, make sure all electrical connections are tight. Check oil level and condition.

Freight Bi-Parting Doors: check at frequency established above. Interlocks shall be set so that latch will prevent door opening of no greater than 3/4" at any point. Car gates shall prevent movement of the car unless the gate is within 2" or less of full closure. Check guide fastenings and maintain at least 1/2" to 1" of track engagement. The side play of the door shall be maintained at a minimum to avoid racking.

Control: Where electrical controls involve relays and contacts, these shall be checked annually for contact condition, pressure and wipe. The relays and contacts shall be checked manually for freedom of movement and dressed and lubricated as needed. All operating and cupped switches shall be examined annually for freedom of movement, contact condition, pressure and wipe. All electrical connections shall be checked annually for tightness and coils and fuses for heating.

Valves and Power Unit: Valve adjustment is only required when trouble is encountered, with control contact and valve coil failures, the first areas to check are the contacts and relays in the circuitry of this function. Strainers shall be checked on a quarterly basis, with oil level check at each visit. The condition of oil, clarity, color and odor shall be checked every year, or in the event of speed and landing difficulty occurring frequently. Any evidence of moisture suggests replacement. When there is poor clarity or the oil is cloudy, it shall be filtered and the filtering sequence shall be repeated at least once, a week or two later, to make sure that the residual oil in the cylinder circulates and is also filtered. Change in odor or color, suggest that a chemical analysis is needed. Check the condition if belts (if any) on the power unit semi-annually. (Shall oil which seeped through packing be reintroduced, it shall be checked for clarity.)

Motor: Check bearings for heating and lubrication every inspection. If the motor has a commutator, check for color, wear, brush setting and condition. Blow out the motor on a yearly basis, check insulation of coils and apply insulating paint every three years. Dry and brittle insulation can result in burnout and fire. It must be remembered that coils and stators in stock can get brittle and their insulation shall be checked and restored as needed.

Cupped Equipment:

A. Jack Unit and Piping: Plunger and guide bearings, packing gland, casing gasket, packing and piping system including valves shall be checked semi-annually. Poor conditions and leaks shall be corrected or repaired as needed. It is understood that the casing, underground piping, unaccessible wall lines in wall and ceiling are not the obligation of the contractor.

B. Guide Rails: Shall be cleaned and checked annually. Check guide oilers (where they are used) and refill as required.

Lubricants: All lubricants utilized by the contractor shall comply with the original equipment manufacturer's recommended specifications.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT.

FREQUENCY OF INSPECTIONS: AS PER LISTING

EACH INSPECTION TO BE SIGNED FOR BY THE OWNER'S REPRESENTATIVE.

1. Specific Equipment Performance Standards:

   a. Call Back: Nominally 4 to possible 6 per year, excluding nuisance calls.

2. Minimum Expected Periodic Servicing, Checking and Adjustments.

   a. Every 2 Weeks: Ride the car observing operation, adjust in tank with car at top.

   b. Every 13 Weeks: Check adjustment of car doors and door operator, adjust if needed, check landing switches, check guide lubricators and lubrication.

   c. Every 26 Weeks: Clean and examine saf-t-edge, door guides and fastenings.

   d. Every 52 Weeks: Clean, oil and adjust all hoistway doors, check all control switches, car and corridor stations. Check and make sure that all electrical connections are tight.

   e. Other: Every five years consideration shall be given to the need for oil filtration or replacement. If it is dirty, change the oil. YOU ARE BEING PAID TO MAINTAIN THE EQUIPMENT.

3. Doors and Door Operation: Frequency of inspections and adjustment briefly covered above.

   a. Car and Hoistway Doors: Clean and lubricate track and hangers as needed. Check backplate and hanger to door fastenings, relating devices to insure tightness. Check up thrust adjustment and fastening (nominal 0.010" to track), shall clearance exceed 0.035", it shall be adjusted. Door relating cables shall be taut enough that they will not sag in normal operation of opening and closing, but provide some flexibility in door reversal to reduce the shock of reversal on the cable and fastenings. Door interlock adjustment to be set to permit the latch to drop within 3/8" or less of full closure. Check contact setting for pressure and wipe. Bottom door guides shall be fastened tight and replaced when panel may be moved in and out by 1/4" or more. Check and tighten non-vision or sight guards at each inspection. Car door contact shall be adjusted to prevent the move of the car unless the car door is 2" or less from full closure.

b. Saf-T-Edge: Device shall be checked quarterly for freedom of movement to permit it to operate with even a somewhat glancing blow, but not sloppy permitting it to rub against door. Where there is a retractable projection at opening, it shall be slightly in front of the door and shall permit the door to be held in the open position with pressure on the edge, in closing, edge shall permit door to reopen within 1-1/2" of full closure or less. Reopening action shall be such that reversal of the door movement will occur at such a point or before the leading edge of the vane and doors are in the same pane, i.e., at or before the complete collapse of the edge. Active contact line of the edge shall be free of cuts or bulges. Control contact cable, and retracting cable, where used, shall be held clear of snagging on other moving parts.

c. Door Operator: Check, lubricate and adjust quarterly. Where gear operators are used, gear oil level shall be checked and the unit cleaned and flushed and refilled within every five years. Opening motion shall be at design speed with smooth start, slowdown and stop, with particular care being taken to avoid drag in the opening action as the door reaches full open position. Drag at this point can prevent full opening of the door and drop out of the opening relay preventing the door from closing. Closing time shall be adjusted to the requirements of ANSI Code, considering the weight and speed's effect on the kinetic energy developed. Closing adjustment shall permit door reversal within travel of the saf-t-edge as above and without drift.

4. Control:

a. Regular inspection and adjustments as outlined above. The effects of control fault can be most easily detected for individual car operation by riding the unit and observing operation. At each scheduled control inspection, the operation of the relays in the panel in normal service can suggest trouble areas, erratic relay operation or contact sparking. Touch up adjustment suggested by these observations can frequently avoid drift off of adjustment and a major tune up, or failure of a more serious nature. Mechanical check of relay operation can best be done with the power off, testing contact pressure and wipe, as well as friction where relays appear sluggish. At first power cut off, check frequent operating relays for overheating by touch. This shall be done particularly for relays in the circuit where undue sparking is apparent. At the same time, transformers and rectifiers shall be checked for heat. The rectifier voltage shall be periodically checked and compared to posted values, confirming periodic check and recording variation, if any. Contacts shall be found to be clean if contact wipe is sufficient, they shall only be dressed if they have developed ridges, blisters, or are excessively pitted. Shall this condition be beyond correction, they shall be replaced. On occasion, pins or relay fulcrum points may give rough or sluggish relay action and may need slight lubrication or dressing. Proper values of timing relays shall be posted on the control cabinet or panel and checked at control

inspection schedule. Particular attention shall be paid to all overload and phase failure relays where they are used for checking adjustment and freedom of movement. A log of corrections and adjustment of each controller, studied at each scheduled inspection, can be time saver in clearing troubles and preventive maintenance adjustment. Contractor is advised that any burn out, including fire, originating in his apparatus through its failure, is his responsibility.

5. Valve and Power Unit:

   a. Valve adjustment is only required when trouble is encountered with control contact and valve coil failures, and is the first area to check. Strainers shall be checked on a quarterly basis, with oil level checked at each visit. The condition of the oil, clarity, color and odor shall be checked each year or in the event of excessive leveling and speed adjustment problems. Any evidence of moisture in the oil suggests replacement, clarity, a cloudy oil shall be filtered and the filtering sequence repeated at least once several days later to make sure the residual oil in the cylinder circulates and is also filtered. Change in odor or color suggest that a chemical analysis is needed. Check the condition of belts and their tension on the power unit quarterly. Shall oil which seeped through the packing be re-introduced, check for clarity.

   b. Motor: Check bearings for heating and lubrication every four weeks. Blow out yearly, check insulation for coils and apply insulating paint every three years. Dry and brittle insulation can result in a burn out and fire. It must be remembered that coils in motors that are in stock can get brittle and their insulation shall be examined and restored as needed.

6. Cupped Equipment:

   a. Jack Unit and Piping: Plunger and guide bearing, packing gland, casing gasket, packing and piping system including valves shall be checked quarterly and adjusted and repaired as required. It is understood that the casing, underground piping and unaccessible wall lines in wall and ceiling are not an obligation of the contractor.

   b. Cupped Switches: Shall be checked for contact pressure, wear and wipe, quarterly where involved in the landing of the elevator, annually for all safety equipment, slowdown and limits.

   c. Guides and Guide Shoes: Shall be checked monthly for lubrication, wear and condition. Oilers shall be filled as required. Rails shall be examined for possible scoring and redressed if necessary. If roller guides are used, they shall be checked and lubricated as necessary. If there are signs of wear, deterioration or rough surfaces, new rollers shall be installed to replace those removed.

d. Car and Corridor Stations: Shall be opened up each year for cleaning and switches each examined for positive action, contact pressure, wipe and wear. All connections shall be checked to see that they are tight.

Special instructions for inspecting hydraulic elevators installed on the LSU Campus prior to 1971.

The hydraulic systems in each of the hydraulic elevators installed prior to 1971 shall be inspected weekly. Repairs to the hydraulic systems will be made immediately. If the loss of oil can not be explained or stopped by repairing apparent leaks, the elevator is to be taken out of service and Facility Services notified immediately. (See attached listing of hydraulic elevators installed prior to 1971).

HYDRAULIC ELEVATORS
Installed Prior to 1971

BUILDING & NUMBER	MANUFACTURER	MANUFACTURER I.D. OR SERIAL #
Audubon - #17	Dover	E58500
Chemical Engineering - #140	Montgomery	C-P26927
Coates - #43	Montgomery	CPS-43998
Dalrymple Building - #270	Esco	C-722
Electrical Engineering - #254	Esco	C-1549
Lab School - #524	Dover	E 59244
French House - #465	Esco	N/A
Hill Memorial - #10	Montgomery	CP-51804
Hill Memorial - #10	Montgomery	CP-51805
Hill Memorial - #10	Montgomery	CP-51806
Human Ecology - #279	Esco	C-1256
Knapp - #482	Dover	E 81466
East Laville - #455	Rotary	E 6042
West Laville - #457	Rotary	E 5137
Middleton Library - $5	Otis	228611
Office Supply - #248	Montgomery	CP-26421
Peabody - #7	Dover	E 71698
Pleasant Hall - #50	Esco	C-1751
Union - #38	Montgomery	C-15400
Union - #38	Montgomery	C-15401
Union - #38	Montgomery	C-15399
Union - #38	Montgomery	50839
Union - #38	Dover (Rotary)	N/A
H. D. Wilson - #327	Esco	C-1519

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTATIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

FREQUENCY OF INSPECTION: AS PER LISTING

EACH INSPECTION MUST BE SIGNED FOR BY OWNER'S REPRESENTATIVE.

ESCALATOR UNITS:

1. Specific Equipment Performance Standards:

   a. Call Backs: Normally 2 to 4 per year. These include equipment operating and adjustment failures, not broken comb fingers or operating of safety devices occasioned by foreign objects caught in steps, skirts, etc.

   b. Reversal: Each unit shall be capable of operating smoothly and noise free in either direction and for any period of which this need arises.

   c. Hand Rails: Hand rails shall operate with little noticeable vibration, at the speed of the steps, but in no case, faster or slower than a movement of less than 6" gain or loss of position of a given point on the hand rail and the associated step. Hand rail tension to be set such that the hand rail may not be stalled by the average size man standing on the comb plate with medium effort in the down direction. All gouges and cracks in the surface of the hand rail shall be vulcanized smooth, and hand rail shall be replaced in the event of breakage at the bead, or when the throat at the beads is greater than 1-7/8". Hand rail brushes shall be free to float.

   d. Step to Skirt Clearance: Shall not exceed 5/16" total of both sides or not more than 3/16" on either side.

   e. Step Riser to Comb Plate Clearance: Hold to nominal 1/8" +/- 1/16".

   f. Normal Stop: With any load, the escalator shall stop on the machine brake as required by ANSI A 117 Rule 804.3 or Rule 804.3b, whichever is applicable.

   g. Safety Settings: Track up thrust shall be no more than 1/16", step trailing edge up thrust at top and bottom curves shall not exceed 3/32". Bottom up thrust track switches nearest comb plate shall be set to 0.020" to 0.025", and upper switch to 0.040" to 0.045" on either side. (Can be checked by holding the leading edge of the step in the down direction escalator shall stop within 2 steps of the bottom comb plate). Broken drive chain emergency brake shall be set as required by Rule 805.1f. Broken step chain device switches on either side shall operate with ½" movement either way and shall function as required by Rule 805.1d. Governor switch shall be set as required by Rule 805.1c.

h. Step Chain Condition: May be most easily checked by clearance between steps which is normally 1/8". When this increases to 3/16", that section of chain will be considered worn. When the overall length of the chain increases to beyond 2", chain shall be replaced. When the distance between any two alternate axles outside to outside to outside increases to 33.147", that section of chain shall be replaced as a new length is 32.147" +/- 0.010". Shall the bottom carriage extend after the initial installation, stretch by 1/4", in any one year or 3/8" in any three years, the chains are not being properly lubricated, and may require the removal of a link to examine varnish build up followed by cleaning and thorough pickling in oil, or replacement shall the varnish layer be in access of 0.004".

2. Minimum Expected Periodic Service Check, Oil and Adjustment:

a. Weekly: Ride the unit, observing operation, clearances, start, stop, check machine and lower sprocket area, lubricate step chains, replace comb fingers as needed.

b. Every 2 Weeks: Run escalator in reverse, observing operation clearances and indexing.

c. Every Quarter: Check main line fuses for heating. Check hand rail clearance to molding.

d. Semi-Annually: Seal machine leaks, inspect control, its operation and make adjustments.

e. Annually: Clean and inspect interior of truss including pans for its entire length, hand rail tension device and rollers, hand rail drive adjusting chains as required, check bottom sprocket and its tension and ease of movement, all safety devices, motor, brake, machine including gear wear, check torque required to start escalator movement without brake (shall be 5 to 8 lbs).

f. Every Three Years: Lubricate all grease fittings, check lubrication of all rollers, clean and paint starter with insulator varnish.

3. Ride and Check Alignments:

a. Make a weekly rise and observation of the escalator with careful attention to skirt, comb plate clearance and particular attention to up thrust at the top and bottom curves, and movement of the step as it passes through the comb plate as this can indicated future problems in these areas. As the step moves through the comb plate, the comb fingers shall be centering on the grooves and shall parallel the comb plates. Adjustments must be made before becoming costly repairs or failures. Balustrade irregularities shall also be checked and corrected. Observation on reversals can also be checked for potential trouble.

4. Step Chain and Tracks:

   a. Step Chains: Shall be lubricated weekly by brush. Improper or insufficient lubrication can cause uneven chain wear and poop step indexing, as well as materially reduce the life of the chain. It must be recognized that, for all practical purposes, each pin and brushing of each link makes little more than one revolution for each full travel of the chain, i.e., once every 30/45 seconds shall the escalator speed be 90/120 feet per minute. Considering this the true life of an escalator, step chain is indeterminate if it is properly lubricated. It must be further recognized that there is no real check of proper chain lubrication short of dismantling the links for excessive wear. It is in consideration of these facts that the performance standards are established as a yearly check of chain wear. A tool or gauge will be made by the contractor to check or measure the outside to outside dimension of the step axles of two adjacent steps. The clearance between two adjacent steps will be recorded for the bidder's check, as will the lower sprocket. These will be checked yearly and the contractor must agree to the standards established herein before and be governed by them. In the case of chain wear beyond the limits established, replacement of the chains, or as a minimum, bushings and pins, not bushings alone, will be the only acceptable correction.

   b. Sprockets: Shall be examined yearly, checked, lubricated and cleaned as needed, with roller bearing greasing every three years. Sprockets shall insure parallel movement of step axles for proper indexing. Bottom sprocket and carriage to be checked yearly for freedom of movement and proper spring tension.

   c. Tracks: To be cleaned and checked yearly with particular attention to track joints. Roller to track up thrust in the run as well as up thrusts at curves and side guidance shall be checked and adjusted as required. NOTE: Steps rubbing at the skirt suggests need for side guidance adjustment or skirt adjustment shall the step float indicate that side track guidance is proper.

5. Hand Rails, Drive, Guidance:

   a. Surface and Operation: Examine at each inspection allowing each hand rail to pass through your hand with particular attention to the bead for cracks. Excessive vibration may indicate loose drive chains as well as slippage. Manufacturer's standards shall be used to determine the possibility of splicing in the event of bead or cord damage. Underside of hand rail shall be dressed periodically to reduce guide friction. The hand rail guides at the top and bottom curves shall be examined yearly and replaced when they could cut cord or increase friction. Hand rail tension shall be checked to some extent at every visit with full check and adjustment yearly. In the truss hand rail guidance rollers (where used) shall be cleaned yearly or more frequently shall the face of the hand rail indicate a deposit of dirt and soiling.

b. Drive: Examine yearly for chain take up, chain and sprocket wear, clean and lubricate. NOTE: Chain take up may be more frequently required. Friction drive through rubber bands on the upper hand rail sheaves, grease every three years.

6. Machine and Sprocket Drive (Chain or Gear):

a. Machine: Check for gland seepage each visit, empty drain pan (do not reuse oil). Seal small leaks on a semi-annual basis. Annually, lubricate intermediate gear bearing and "worm shaft bearing". Flush and drain worm gear oil, refill, lubricate governor, and output shaft bearing. Check worm gear clearance annually when brake is dismantled, readjust if there is thrust movement.

b. Machine Brake: Shall be thoroughly cleaned, lubricated, and checked for freedom of operation at least once each year. Since this requires dismantling for a thorough inspection and lubrication, the original manufacturer's setting must be held. To retain this setting, compressed length of the brake springs shall be measured before dismantling, and restored in reassembly. This length shall be checked periodically and spring/springs readjusted as the shoes are brought closer to the brake pulley to compensate for brake lining wear. Lining shall be replaced before wear reaches a point where drum could be scored. Check operating armature and its guide for excessive wear to avoid erratic brake operation.

c. Motors: Shall be blown out annually and rotor and stator clearances checked. Stator shall be cleaned and painted with insulating varnish every three years to avoid the insulation becoming dry ad brittle.

d. Drive Chains: Check chain tension setting for 1/4" slack, check freedom of broken chain device, check chain wear and lubricate as well as the pinion and drive sprockets. These operations to be done annually.

e. Drive Gears (Where Applicable): Annually, clean and lubricate gears, adjust gear relation as needed, check and lubricate bearings as required.

7. Control and Switches:

a. Controllers: Shall be inspected on an annual basis, checking relays for contact condition, pressure, and wipe. Check contact fulcrums, dress, lubricate as required. This is in addition to the visual inspection done on the regularly monthly basis. Check all connections and fuse clips for tightness. Check rectifier and record voltage. Check overloads and phase failure relays.

b. Switches: Check switch action and adjustment, contacts for condition, pressure and wipe.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTATIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

FREQUENCY OF INSPECTION: AS PER LISTING

EACH INSPECTION MUST BE SIGNED FOR BY OWNER'S REPRESENTATIVE.

ESCALATOR UNITS

1. Specific Equipment Performance Standards:

   A) Call Backs: Normally 2 to 4 per year. These include equipment operating and adjustment failures, not broken comb fingers or operating of safety devices occasioned by foreign objects caught in steps, skirts, etc.

   B) Reversal: Each unit shall be capable of operating smoothly and noise free in either direction and for any period of which this need arises.

   C) Hand Rails: Hand rails shall operate with little noticeable vibration, at the speed of the steps, but in no case, faster or slower than a movement of less than 6" gain or loss of position of a given point on the hand rail and the associated step. Hand rail tension to be set such that the hand rail may not be stalled by the average size man standing on the comb plate with medium effort in the down direction. All gouges and cracks in the surface of the hand rail shall be vulcanized smooth, and hand rail shall be replaced in the event of breakage at the bead, or when the throat at the beads is greater than 1-7/8". Hand rail brushes shall be free to float.

   D) Step to Skirt Clearance: Shall not exceed 5/16" total of both sides or not more than 3/16" on either side.

   E) Step Riser to Comb Plate Clearance: Hold to nominal 1/8" +/- 1/16".

   F) Normal Stop: With any load, the escalator should stop on the machine brake as required by ANSI A 117 Rule 804.3 or Rule 804.3b, whichever is applicable.

   G) Safety Settings: Track up thrust shall be no more than 1/16", step trailing edge up thrust at top and bottom curves shall not exceed 3/32". Bottom up thrust track switches nearest comb plate shall be set to 0.020" to 0.025", and upper switch to 0.040" to 0.045" on either side. (Can be checked by holding the leading edge of the step in the down direction escalator should stop within 2 steps of the bottom comb plate). Broken drive chain emergency brake should be set as required by Rule 805.1f. Broken step chain device switches on either side shall operate with ½" movement either way and shall function as required by Rule 805.1d. Governor switch should be set as required by Rule 805.1c.

   H) Step Chain Condition: May be most easily checked by clearance between steps which is normally 1/8". When this increases to 3/16", that section of chain will be considered worn. When the overall length of the chain increases to beyond 2", chain should be replaced. When the distance between any two alternate axles

outside to outside to outside increases to 33.147", that section of chain should be replaced as a new length is 32.147" +/- 0.010". Should the bottom carriage extend after the initial installation, stretch by 1/4", in any one year or 3/8" in any three years, the chains are not being properly lubricated, and may require the removal of a link to examine varnish build up followed by cleaning and thorough pickling in oil, or replacement should the varnish layer be in access of 0.004".

2. Minimum Expected Periodic Service Check, Oil and Adjustment:

   A) Weekly: Ride the unit, observing operation, clearances, start, stop, check machine and lower sprocket area, lubricate step chains, and replace comb fingers as needed.

   B) Every 2 Weeks: Run escalator in reverse, observing operation clearances and indexing.

   C) Every Quarter: Check main line fuses for heating. Check hand rail clearance to molding.

   D) Semi-Annually: Seal machine leaks, inspect control, its operation and make adjustments.

   E) Annually: Clean and inspect interior of truss including pans for its entire length, hand rail tension device and rollers, hand rail drive adjusting chains as required, check bottom sprocket and its tension and ease of movement, all safety devices, motor, brake, machine including gear wear, check torque required to start escalator movement without brake (should be 5 to 8 lbs).

   F) Every Three Years: Lubricate all grease fittings, check lubrication of all rollers, clean and paint starter with insulator varnish.

3. Ride and Check Alignments:

   A) Make a weekly rise and observation of the escalator with careful attention to skirt, comb plate clearance and particular attention to up thrust at the top and bottom curves, and movement of the step as it passes through the comb plate as this can indicated future problems in these areas. As the step moves through the comb plate, the comb fingers shall be centering on the grooves and shall parallel the comb plates. Adjustments must be made before becoming costly repairs or failures. Balustrade irregularities shall also be checked and corrected. Observation on reversals can also be checked for potential trouble.

4. Step Chain and Tracks:

   A) Step Chains: Shall be lubricated weekly by brush. Improper or insufficient lubrication can cause uneven chain wear and poop step indexing, as well as materially reduce the life of the chain. It must be recognized that, for all practical purposes, each pin and brushing of each link makes little more than one revolution for each full travel of the chain, i.e., once every 30/45 seconds should

the escalator speed be 90/120 feet per minute. Considering this the true life of an escalator, step chain is indeterminate if it is properly lubricated. It must be further recognized that there is no real check of proper chain lubrication short of dismantling the links for excessive wear. It is in consideration of these facts that the performance standards are established as a yearly check of chain wear. A tool or gauge will be made by the contractor to check or measure the outside to outside dimension of the step axles of two adjacent steps. The clearance between two adjacent steps will be recorded for the bidder's check, as will the lower sprocket. These will be checked yearly and the contractor must agree to the standards established herein before and be governed by them. In the case of chain wear beyond the limits established, replacement of the chains, or as a minimum, bushings and pins, not bushings alone, will be the only acceptable correction.

B) Sprockets: Shall be examined yearly, checked, lubricated and cleaned as needed, with roller bearing greasing every three years. Sprockets shall insure parallel movement of step axles for proper indexing. Bottom sprocket and carriage to be checked yearly for freedom of movement and proper spring tension.

C) Tracks: To be cleaned and checked yearly with particular attention to track joints. Roller to track up thrust in the run as well as up thrusts at curves and side guidance shall be checked and adjusted as required. NOTE: Steps rubbing at the skirt suggests need for side guidance adjustment or skirt adjustment should the step float indicate that side track guidance is proper.

5. Hand Rails, Drive, Guidance:

A) Surface and Operation: Examine at each inspection allowing each hand rail to pass through your hand with particular attention to the bead for cracks. Excessive vibration may indicate loose drive chains as well as slippage. Manufacturer's standards shall be used to determine the possibility of splicing in the event of bead or cord damage. Underside of hand rail should be dressed periodically to reduce guide friction. The hand rail guides at the top and bottom curves should be examined yearly and replaced when they could cut cord or increase friction. Hand rail tension should be checked to some extent at every visit with full check and adjustment yearly. In the truss hand rail guidance rollers (where used) should be cleaned yearly or more frequently should the face of the hand rail indicate a deposit of dirt and soiling.

B) Drive: Examine yearly for chain take up, chain and sprocket wear, clean and lubricate. NOTE: Chain take up may be more frequently required. Friction drive through rubber bands on the upper hand rail sheaves, grease every three years.

6. Machine and Sprocket Drive (Chain or Gear):

A) Machine: Check for gland seepage each visit, empty drain pan (do not reuse oil_). Seal small leaks on a semi-annual basis. Annually, lubricate intermediate gear bearing and "worm shaft bearing". Flush and drain worm gear oil, refill, lubricate governor, and output shaft bearing. Check worm gear clearance annually when brake is dismantled; readjust if there is thrust movement.

B) Machine Brake: Shall be thoroughly cleaned, lubricated, and checked for freedom of operation at least once each year. Since this requires dismantling for a thorough inspection and lubrication, the original manufacturer's setting must be held. To retain this setting, compressed length of the brake springs shall be measured before dismantling, and restored in reassembly. This length shall be checked periodically and spring/springs readjusted as the shoes are brought closer to the brake pulley to compensate for brake lining wear. Lining shall be replaced before wear reaches a point where drum could be scored. Check operating armature and its guide for excessive wear to avoid erratic brake operation.

C) Motors: Shall be blown out annually and rotor and stator clearances checked. Stator shall be cleaned and painted with insulating varnish every three years to avoid the insulation becoming dry ad brittle.

D) Drive Chains: Check chain tension setting for 1/4" slack, check freedom of broken chain device, check chain wears and lubricate as well as the pinion and drive sprockets. These operations to be done annually.

E) Drive Gears (Where Applicable): Annually, clean and lubricate gears, adjust gear relation as needed, check and lubricate bearings as required.

7. Control and Switches:

A) Controllers: Shall be inspected on an annual basis, checking relays for contact condition, pressure, and wipe. Check contact fulcrums, dress, lubricate as required. This is in addition to the visual inspection done on the regularly monthly basis. Check all connections and fuse clips for tightness. Check rectifier and record voltage. Check overloads and phase failure relays.

B) Switches: Check switch action and adjustment, contacts for condition, pressure and wipe.

MINIMUM EQUIPMENT PERFORMANCE STANDARDS AND PREVENTIVE MAINTENANCE REQUIRED UNDER THIS CONTRACT

OTHER GEARED UNITS:

FREQUENCY OF INSPECTIONS: AS PER LISTING

EACH INSPECTION TO BE SIGNED FOR BY THE OWNER'S REPRESENTATIVE

HYDRAULIC PASSENGER ELEVATORS

Specific Equipment Performance Standards:

A. Call Back: Nominally 4 to possible 6 per year, excluding nuisance calls.

II. Minimum Expected Periodic Servicing, Checking and Adjustments.

A. Every 2 Weeks: Ride the car observing operation; adjust in tank with car at top.

B. Every 13 Weeks: Check adjustment of car doors and door operator, adjust if needed, check landing switches, and check guide lubricators and lubrication.

C. Every 26 Weeks: Clean and examine saf-t-edge, door guides and fastenings.

D. Every 52 Weeks: Clean, oil and adjust all hoistway doors, check all control switches, car and corridor stations. Check and make sure that all electrical connections are tight.

E. Other: Every five years consideration should be given to the need for oil filtration or replacement. If it is dirty, change the oil. YOU ARE BEING PAID TO MAINTAIN THE EQUIPMENT.

III. Doors and Door Operation: Frequency of inspections and adjustment briefly covered above.

A. Car and Hoistway Doors: Clean and lubricate track and hangers as needed. Check backplate and hanger to door fastenings, relating devices to insure tightness. Check up thrust adjustment and fastening (nominal 0.010" to track), should clearance exceed 0.035", and it shall be adjusted. Door relating cables shall be taut enough that they will not sag in normal operation of opening and closing, but provide some flexibility in door reversal to reduce the shock of reversal on the cable and fastenings. Door

interlock adjustment to be set to permit the latch to drop within 3/8" or less of full closure. Check contact setting for pressure and wipe. Bottom door guides shall be fastened tight and replaced when panel may be moved in and out by 1/4" or more. Check and tighten non-vision or sight guards at each inspection. Car door contact shall be adjusted to prevent the move of the car unless the car door is 2" or less from full closure.

B. Saf-T-Edge: Device shall be checked quarterly for freedom of movement to permit it to operate with even a somewhat glancing blow, but not sloppy permitting it to rub against door. Where there is a retractable projection at opening, it shall be slightly in front of the door and shall permit the door to be held in the open position with pressure on the edge, in closing, edge should permit door to reopen within 1-1/2" of full closure or less. Reopening action shall be such that reversal of the door movement will occur at such a point or before the leading edge of the vane and doors are in the same pane, i.e., at or before the complete collapse of the edge. Active contact line of the edge should be free of cuts or bulges. Control contact cable, and retracting cable, where used, should be held clear of snagging on other moving parts.

C. Door Operator: Check, lubricate and adjust quarterly. Where gear operators are used, gear oil level should be checked and the unit cleaned and flushed and refilled within every five years. Opening motion shall be at design speed with smooth start, slowdown and stop, with particular care being taken to avoid drag in the opening action as the door reaches full open position. Drag at this point can prevent full opening of the door and drop out of the opening relay preventing the door from closing. Closing time shall be adjusted to the requirements of ANSI Code, considering the weight and speed's effect on the kinetic energy developed. Closing adjustment shall permit door reversal within travel of the saf-t-edge as above and without drift.

IV. Control:

A. Regular inspection and adjustments as outlined above. The effects of control fault can be most easily detected for individual car operation by riding the unit and observing operation. At each scheduled control inspection, the operation of the relays in the panel in normal service can suggest trouble areas, erratic relay operation or contact sparking. Touch up adjustment suggested by these observations can frequently avoid drift off of adjustment and a major tune up, or failure of a more serious nature. Mechanical check of relay operation can best be done with the power off, testing contact pressure and wipe, as well as friction where relays appear sluggish. At first power cut off, check frequent operating relays for overheating by touch. This shall be done particularly for relays in the circuit where undue sparking is apparent. At the same time, transformers and rectifiers should be checked for heat. The rectifier voltage shall be

periodically checked and compared to posted values, confirming periodic check and recording variation, if any. Contacts should be found to be clean if contact wipe is sufficient, they shall only be dressed if they have developed ridges, blisters, or are excessively pitted. Should this condition be beyond correction, they shall be replaced. On occasion, pins or relay fulcrum points may give rough or sluggish relay action and may need slight lubrication or dressing. Proper values of timing relays shall be posted on the control cabinet or panel and checked at control inspection schedule. Particular attention shall be paid to all overloads and phase failure relays where they are used for checking adjustment and freedom of movement. A log of corrections and adjustment of each controller, studied at each scheduled inspection, can be time saver in clearing troubles and preventive maintenance adjustment. Contractor is advised that any burn out, including fire, originating in his apparatus through its failure, is his responsibility.

V. Valve and Power Unit:

A. Valve adjustment is only required when trouble is encountered with control contact and valve coil failures, and is the first area to check. Strainers shall be checked on a quarterly basis, with oil level checked at each visit. The condition of the oil, clarity, color and odor shall be checked each year or in the event of excessive leveling and speed adjustment problems. Any evidence of moisture in the oil suggests replacement, clarity, a cloudy oil shall be filtered and the filtering sequence repeated at least once several days later to make sure the residual oil in the cylinder circulates and is also filtered. Change in odor or color suggest that a chemical analysis is needed. Check the condition of belts and their tension on the power unit quarterly. Should oil which seeped through the packing be re-introduced, check for clarity.

B. Motor: Check bearings for heating and lubrication every four weeks. Blow out yearly, check insulation for coils and apply insulating paint every three years. Dry and brittle insulation can result in a burn out and fire. It must be remembered that coils in motors that are in stock can get brittle and their insulation should be examined and restored as needed.

VI. Cupped Equipment:

A. Jack Unit and Piping: Plunger and guide bearing, packing gland, casing gasket, packing and piping system including valves should be checked quarterly and adjusted and repaired as required. It is understood that the casing, underground piping and inaccessible wall lines in wall and ceiling are not an obligation of the contractor.

B. Cupped Switches: Shall be checked for contact pressure, wear and wipe,

quarterly where involved in the landing of the elevator, annually for all safety equipment, slowdown and limits.

C. Guides and Guide Shoes: Shall be checked monthly for lubrication, wear and condition. Oilers shall be filled as required. Rails shall be examined for possible scoring and redressed if necessary. If roller guides are used, they shall be checked and lubricated as necessary. If there are signs of wear, deterioration or rough surfaces, new rollers shall be installed to replace those removed.

D. Car and Corridor Stations: Shall be opened up each year for cleaning and switches each examined for positive action, contact pressure, wipe and wear. All connections shall be checked to see that they are tight.

Special instructions for inspecting hydraulic elevators installed on the LSU Campus prior to 1971.

The hydraulic systems in each of the hydraulic elevators installed prior to 1971 will be inspected weekly. Repairs to the hydraulic systems will be made immediately. If the loss of oil can not be explained or stopped by repairing apparent leaks, the elevator is to be taken out of service and Facility Services notified immediately. (See attached listing of hydraulic elevators installed prior to 1971).

HYDRAULIC ELEVATORS
Installed Prior to 1971

BUILDING & NUMBER	MANUFACTURER	MANUFACTURER I.D. OR SERIAL #
Audubon - #17	Dover	E58500
Chemical Engineering - #140	Montgomery	C-P26927
Coates - #43	Montgomery	CPS-43998
Dalrymple Building - #270	Esco	C-722
Electrical Engineering - #254	Esco	C-1549
Lab School - #524	Dover	E 59244
French House - #465	Esco	N/A
Hill Memorial - #10	Montgomery	CP-51804
Hill Memorial - #10	Montgomery	CP-51805
Hill Memorial - #10	Montgomery	CP-51806
Human Ecology - #279	Esco	C-1256
Knapp - #482	Dover	E 81466
East Laville - #455	Rotary	E 6042
West Laville - #457	Rotary	E 5137
Middleton Library - $5	Otis	228611
Office Supply - #248	Montgomery	CP-26421
Peabody - #7	Dover	E 71698
Pleasant Hall - #50	Esco	C-1751
Union - #38	Montgomery	C-15400
Union - #38	Montgomery	C-15401
Union - #38	Montgomery	C-15399
Union - #38	Montgomery	50839
Union - #38	Dover (Rotary)	N/A
H. D. Wilson - #327	Esco	C-1519

HYDRAULIC ELEVATORS
Installed Prior to 1971

BUILDING & NUMBER	MANUFACTURER	MANUFACTURER I.D. OR SERIAL #
Audubon - #17	Dover	E58500
Chemical Engineering - #140	Montgomery	C-P26927
Coates - #43	Montgomery	CPS-43998
Dalrymple Building - #270	Esco	C-722
Electrical Engineering - #254	Esco	C-1549
Lab School - #524	Dover	E 59244
French House - #465	Esco	N/A
Hill Memorial - #10	Montgomery	CP-51804
Hill Memorial - #10	Montgomery	CP-51805
Hill Memorial - #10	Montgomery	CP-51806
Knapp - #482	Dover	E 81466
East Laville - #455	Rotary	E 6042
West Laville - #457	Rotary	E 5137
Middleton Library - $5	Otis	228611
Peabody - #7	Dover	E 71698
Pleasant Hall - #50	Esco	C-1751
Union - #38	Montgomery	C-15400
H. D. Wilson - #327	Esco	C-1519

Updated May 11, 2005

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
	M =	
NL = MONTH FOR NO LOADT DEST	MONTHLY	
	W =	
T = TRACTION	WEEKLY	
	QT=	
H = HYDRAULIC	QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
ACADIAN	ARMOUR	2080	T	P	6	SM		5	_____
AG. CHEMISTRY	DOVER	EG-6766	H	F	2	QT		10	_____
AG. CHEMISTRY	DOVER	EG-6767	H	P	3	M		10	_____
AG. SCIENCE	DOVER	E59469	H	P	3	SM		5	_____
ALLEN	MONTGOMERY	CTS-47259	T	P	3	SM	5-May	5	_____
ATHLETIC BLDG.	DOVER	E-D0585	H	P	6	SM		4	_____
	DOVER	E-D0586	H	P	6	SM		4	_____
	DOVER	E-D0584	H	P	6	SM		4	_____
AUDUBON	DOVER	E58500	H	P	4	SM	5-May	10	_____
BLAKE	ARMOUR	2081	T	P	4	SM	5-May	5	_____
BOYD, ANNIE	OTIS	225055	T	P	4	SM	5-Apr	5	_____
BOYD, THOMAS	OTIS	340426	T	P	4	SM	1-Apr		_____
CEBA	MONTGOMERY	CT-35731	T	P	3	SM	5-Apr	5	_____
	MONTGOMERY	CT-35732	T	P	3	SM	5-Apr	10	_____
CHEMICAL ENG.	MONTGOMERY	CP-26927	H	P	2	SM		5	_____
CHOPPIN	MONTGOMERY	CT-30681	T	P	8	W	5-Apr	10	_____
	MONTGOMERY	CT-30682	T	P	8	W	5-Apr	10	_____
	MONTGOMERY	CT-30683	T	F	8	SM	5-Apr	10	_____
COATES	MONTGOMERY	CT-43999	H	P	3	SM		8	_____
	MONTGOMERY	CT-43998	T	P	3	SM	5-May	5	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
NL = MONTH FOR NO LOADT DEST	M = MONTHLY	
T = TRACTION	W = WEEKLY	
H = HYDRAULIC	QT= QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
DESIGN, NEW	U.S.	18297	T	P	4	SM	5-May	5	_____
	U.S.	18298	T	P	4	SM	5-May	5	_____
DALRYMPLE	ESCO	C-722	H	P	3	M		5	_____
ELECTRICAL ENG.	ESCO	C-1549	H	P	4	M		4	_____
EVANGELINE	OTIS	225305	T	P	6	SM	5-Apr	10	_____
		225306	T	P	6	SM	5-Apr	10	_____
FORESTRY/	MONTGOMERY	CP-51293	H	P	3	SM		10	_____
WILDLIFE	MONTGOMERY	CP-51294	H	P	3	SM		10	_____
FRANCIONI	OTIS	225054	T	P	3	QT	5-May	5	_____
FRENCH HOUSE	ESCO		H	P	3	SM		10	_____
FREY BLDG.	MONTGOMERY	CP-78719	H	P	3	M		4	_____
	MONTGOMERY	CP-78720	H	P	3	M		4	_____
GEOLOGY (old)	OTIS	225508	T	P	4	SM	5-Apr	4	_____
GEOLOGY (new)	DOVER	E79957	H	P	3	SM		10	_____
	DOVER	E79958	H	P	3	SM		10	_____
GRAHAM (old)	OTIS	228986	T	P	6	SM	5-May	5	_____
GRAHAM (new)	MONTGOMERY	C-17688	T	P	5	W	5-May	5	_____
HATCHER	OTIS	226627	T	P	5	SM	1-Jun	6	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
NL = MONTH FOR NO LOADT DEST	M = MONTHLY	
T = TRACTION	W = WEEKLY	
H = HYDRAULIC	QT= QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
HERGET	MONTGOMERY	C-11732	T	P	7	W	5-May	10	_____
	MONTGOMERY	C-11733	T	P	6	W	5-May	10	_____
HIGHLAND	OTIS	150928	T	P	4	SM	5-Apr	4	_____
HILL MEMORIAL	MONTGOMERY	CP-51804	H	P	11	SM		10	_____
	MONTGOMERY	CP-51805	H	P	11	SM		10	
	MONTGOMERY	CP-51806	H	P	4	SM		10	_____
HODGES	OTIS	226629	T	P	5	SM	1-Jun	6	_____
HUMAN ECOLOGY	ESCO	C-1256	H	P	3	SM		5	_____
JOHNSTON	OTIS	226628	T	P	5	SM	2-May	5	_____
KNAPP	DOVER	E81466	H	P	2	SM		10	_____
LAB SCHOOL	DOVER	E59244	H	P	2	SM		10	_____
LAVILLE (East)	ROTARY	E6042	H	P	4	SM		5	_____
LAVILLE (West)	ROTARY	E5137	H	P	4	SM		10	_____
LAW CENTER	PAYNE	300173	T	P	4	W	5-Apr	4	_____
	PAYNE	300174	T	P	4	W	5-Apr	4	_____
	PAYNE	300175	T	P	4	W	5-Apr	4	_____
LAW LIBRARY	OTIS	225131	T	P	6	SM	5-May	5	_____
LIBRARY	MONTGOMERY	97-14145-A	T	P	5	W	2-Dec	12	_____
	MONTGOMERY	97-14145-	T	P	5	W	2-Dec	12	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
NL = MONTH FOR NO LOADT DEST	M = MONTHLY	
T = TRACTION	W = WEEKLY	
H = HYDRAULIC	QT= QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
	MONTGOMERY	B 97-14145-C	T	P	5	W	2-Dec	12	_____
	MONTGOMERY	228610	T	P	5	W	5-May	12	_____
	OTIS	SFW1173C	H	P	3	M		10	_____
LIFE SCIENCE	OTIS	342928	T	P	7	W	5-Apr	10	_____
	OTIS	322929	T	P	7	W	5-Apr	10	_____
	OTIS	342930	T	F	7	W	5-Apr	10	_____
LIFE Sci. Annex	Kone	CT-92790	T	P	7	W	1-Mar		_____
		CT-92791	T	P	7	W	1-Mar		_____
		CT-92792	T	P	7	W	1-Mar		_____
LOCKETT	PAYNE	20112	H	P	4	SM		10	_____
LONG, H.P.	MOTION CONT.	97-13016	H	P	3	SM		10	_____
L.T.R.C.	Dover		H	P	2	SM			_____
McVOY	WESTINGHOUSE	CO-349872	T	P	5	SM	5-May	5	_____
MILLER	STRATOS	342465	T	P	7	W	1-Sep	10	_____
	STRATOS	342466	T	P	7	W	1-Sep	10	_____
MUSIC (old)	OTIS	CT-51602	T	P	3	SM	5-May	5	_____
MUSIC (new)	MONTGOMERY	CT-51602	H	P	3	SM		10	_____
NICHOLSON	GILBERT	C-17459	T	P	4	SM	5-May	5	_____
OFFICE SUPPLY	MONTGOMERY	CP-26421	H	F	2	SM		5	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
NL = MONTH FOR NO LOADT DEST	M = MONTHLY	
T = TRACTION	W = WEEKLY	
H = HYDRAULIC	QT= QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
PEABODY	DOVER	E71696	H	P	3	SM		10	_____
Pennington	DOVER	E73066	H	P	2	SM		10	_____
Center	DOVER	E73067	H	P	2	SM		10	_____
	DOVER	E73068	H	P	2	SM		10	_____
	DOVER	E73069	H	P	2	SM		10	_____
	DOVER	E73070	H	P	2	SM		10	_____
PLEASANT	MONTGOMERY	150611	T	P	4	SM	5-May	10	_____
	ESCO	C-1751	H	P	4	SM		10	_____
SCIENCE SUPPLY	MONTGOMERY	CP-50879	H	F	2	SM		10	_____
SMITH, KIRBY	STRATOS	342069	T	P	13	W	9-Aug	4	_____
	STRATOS	342070	T	P	13	W	9-Aug	4	_____
	STRATOS	342071	T	P	13	W	9-Aug	4	_____
STADIUM,EAST	KONE	CT-98928	ESC				1-Jul		_____
	KONE	CT-98929	ESC				1-Jul		_____
	KONE	CT-98930	ESC				1-Jul		_____
	KONE	CT-98931	T	P			1-Jul		_____
	KONE	CT-98932	T	P			1-Jul		_____
	KONE	CT-98933	T	P			1-Jul		_____
	KONE	CT-98934	T	P			1-Jul		_____
	KONE	CT-98935	T	P			1-Jul		_____
STADIUM, WEST	MONTGOMERY	CT-36093	T	P	3	(See	6/01	6	_____
	MONTGOMERY	CE-36091	E E	P	2	Note			_____
	MONTGOMERY	CE-36092	P		2	#1)			_____
STADIUM PRESS BOX	MONTGOMERY	CT-70920	T	P	3		1-Jun	6	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
NL = MONTH FOR NO LOADT DEST	M = MONTHLY	
T = TRACTION	W = WEEKLY	
H = HYDRAULIC	QT= QUARTERLY	

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
STADIUM/ N.	VERTRANS/ MOTION	96-11205	H	P	6	M	0	5	_____
	VERTRANS		H	F	4	QT	0		_____
	DOVER		H	P	4	QT			_____
STADIUM/ WEIGH ROOM	DOVER	EH-4977	H	F	2	QT		6	_____ _____
STUDENT HEALTH	OTIS	225491	T	P	3	SM	5-May	5	_____
Student Rec. Ctr.	DOVER	E-B4263	H	P	2	SM		2	_____
STURGIS	DOVER	E72922	H	F	3	SM		10	_____
	E72923		H	F	3	SM		10	_____
TUREAUD	DOVER	C87501	H	P	2	M		10	_____
UNION	MONTGOMERY	C-15400	H	P	5	SM		5	_____
	MONTGOMERY	C-15401	H	F	3	SM		5	_____
	MONTGOMERY	C-15499	H	CH	3	M		5	_____
Union Bookstore	MONTGOMERY	CP-55049	H	F	2	M		5	_____
Union Theater	DOVER		H	SL	2	M		2	_____
VETERINARY MEDICINE	WESTINGHOUSE	G012495	T	P	3	SM	5-May	5	_____
	WESTINGHOUSE	14574-2	T	P	3	SM	5-May	5	_____
	WESTINGHOUSE	14574-3	T	P	3	SM	5-May	5	_____
WILLIAMS, V.R.	MONTGOMERY	CP-35484	H	P	3	SM		10	_____

ELEVATOR LIST

FS = FLOORS SERVED	P = PASSENGER	ESC= ESCALATOR
IN = INSPECTION FREQUENCY	F = FREAIGHT	
FLI = MONTH/YEAR FOR FULL LOAD TEST	SM = SEMIMONTHLY	
	M = MONTHLY	
NL = MONTH FOR NO LOADT DEST	W = WEEKLY	
	QT= QUARTERLY	
T = TRACTION		
H = HYDRAULIC		

BUILDING	MFG.	MFG. I.D.#	TYPE	USE	FS	IN	(FLI See Note #2)	NL	PRICE/ MONTH
WILSON, H.D.	ESCO	C-1519	H	F	2	M		4	_____